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Biotechnology in Europe: 2006 Comparative Study

Executed by Critical I on behalf of EuropaBio

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EuropaBio – Emerging Enterprises Council

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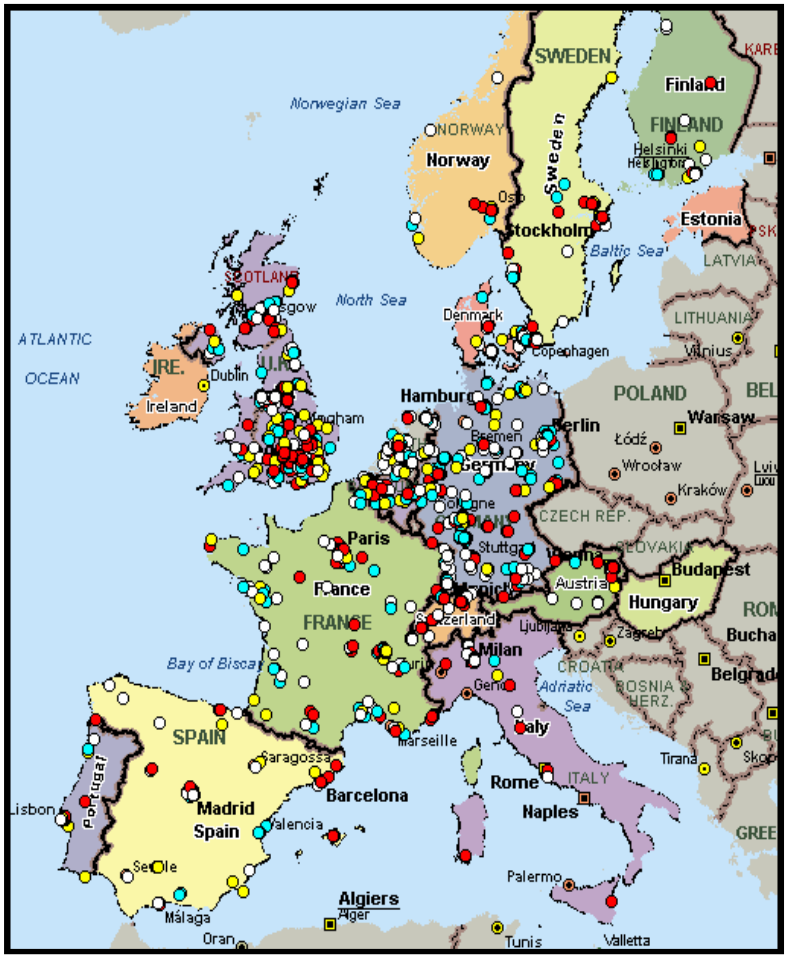
BFS Programme - Malaysia

European biotechnology 2004 – the executive summary

Measure	2004		2003
Companies	2150	▼	2200
Employed	96500	▲	96000
… In R&D	42500	▲	41000
R&D Spend	€7.6 bn	≡	€7.6 bn
Revenue	€21.5 bn	▲	€20.5 bn
VC	€1.1 bn	▲	€0.8 bn
Equity fin.	€2.1 bn	▲	€1.5 bn
Debt finance	€1.8 bn	▲	€1.0 bn
New firms	119	▼	132



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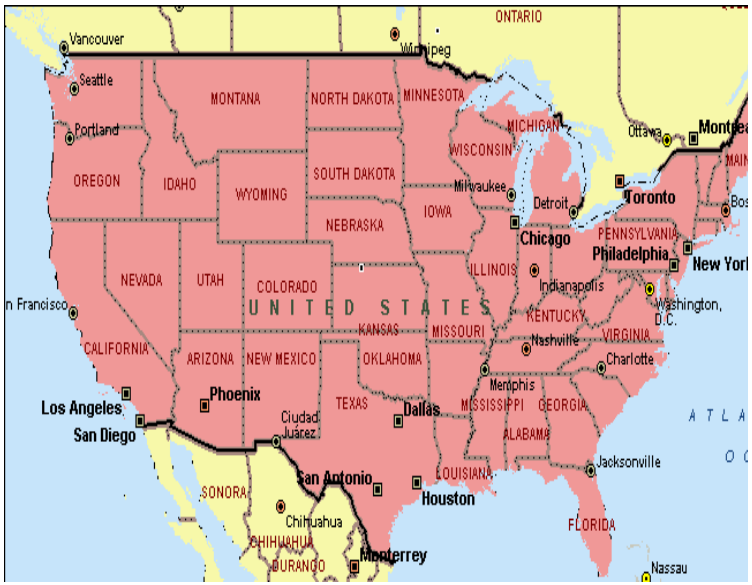
Europe in 2004 compared with the USA

Measure	Europe	Ratio	USA
Companies	2150	**1:1**	1991
Employed	96500	**1:2**	190,500
… In R&D	42500	**1:2**	79,500
R&D Spend	€7.6 bn	**1:3**	€21 bn
Revenue	€21.5 bn	**1:2**	€41.5 bn
VC	€1.1 bn	**1:2.5**	€2.5 bn
Equity fin.	€2.1 bn	**1:4.5**	€9.6 bn
Debt finance	€1.8 bn	**1:3.5**	€6.6 bn
New firms 04	119	**3:2**	78



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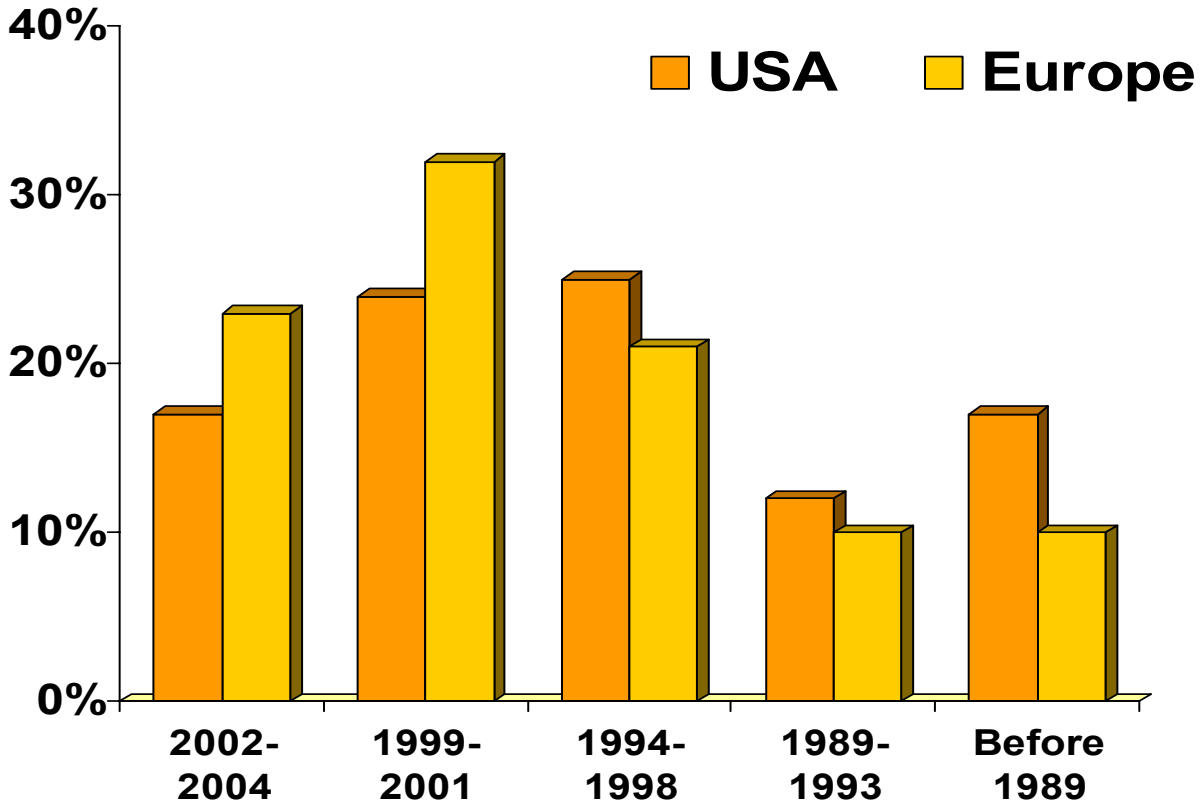
What sort of companies does Europe have?

Europe has a higher proportion of younger companies



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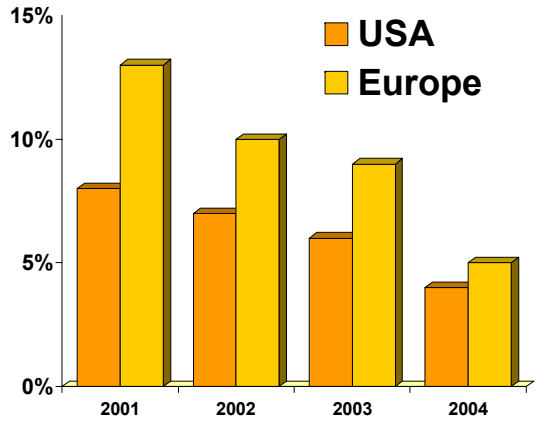
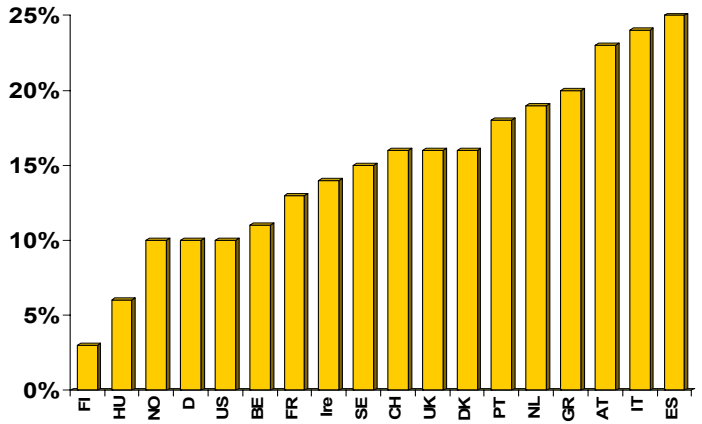
Europe is very good at starting new biotechs

- Even though the rate of formation is slowing, ► more than 130 new European companies formed in 2004
- Over 600 new companies formed since 2000
- % of firms formed in 2003 or 2004 by country►





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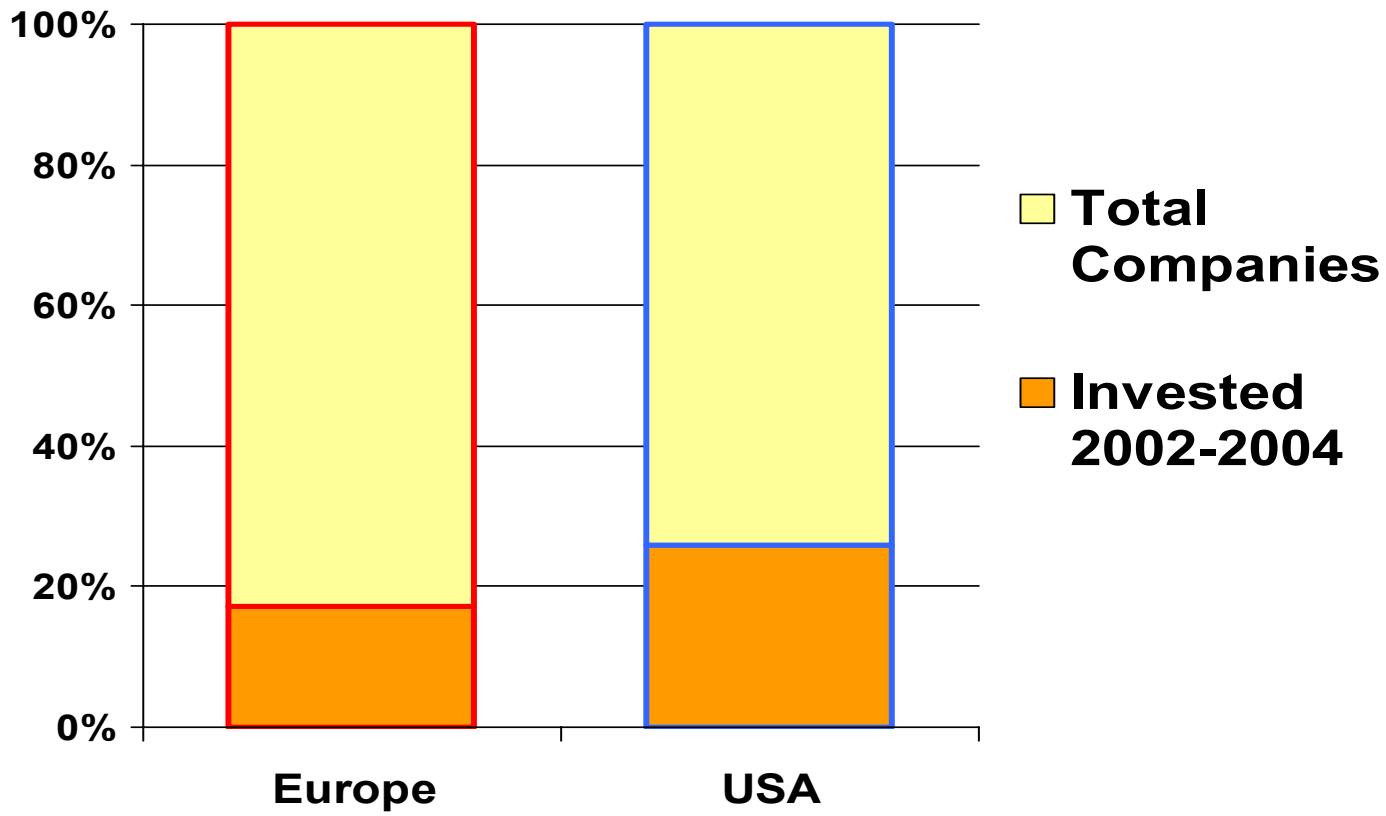
Under 20% of European companies received external financing 2002-2004



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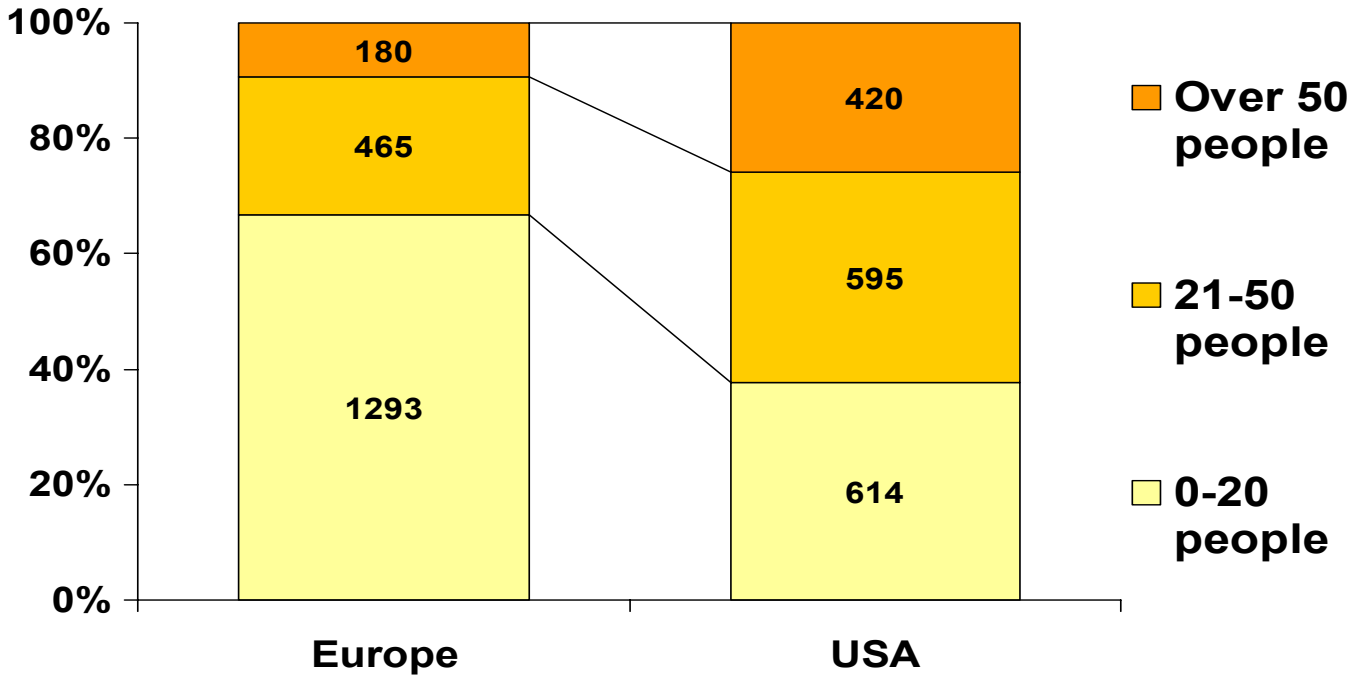
Two-thirds of European firms employ under 20 people



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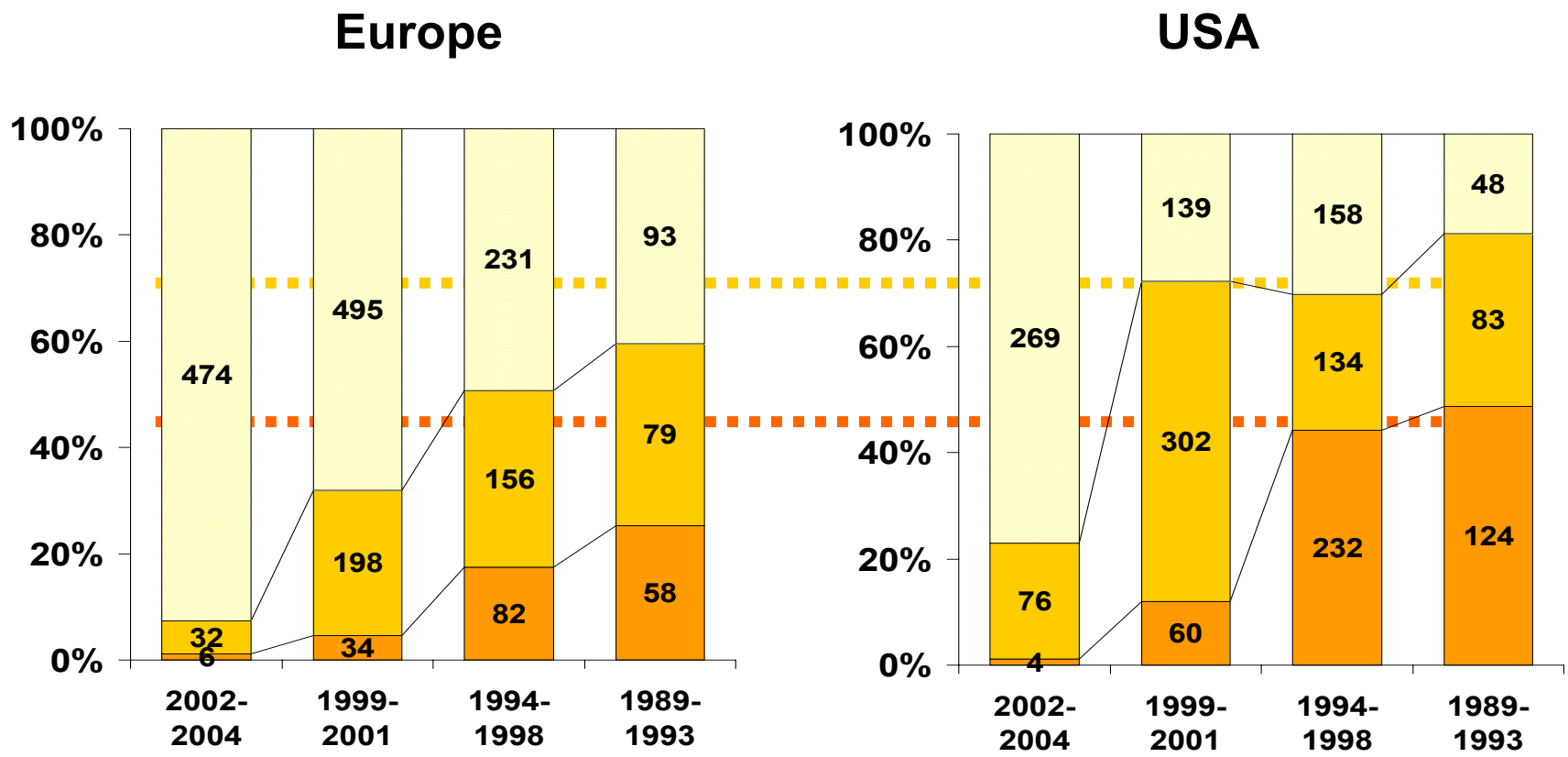
… and has a higher proportion of small companies regardless of age



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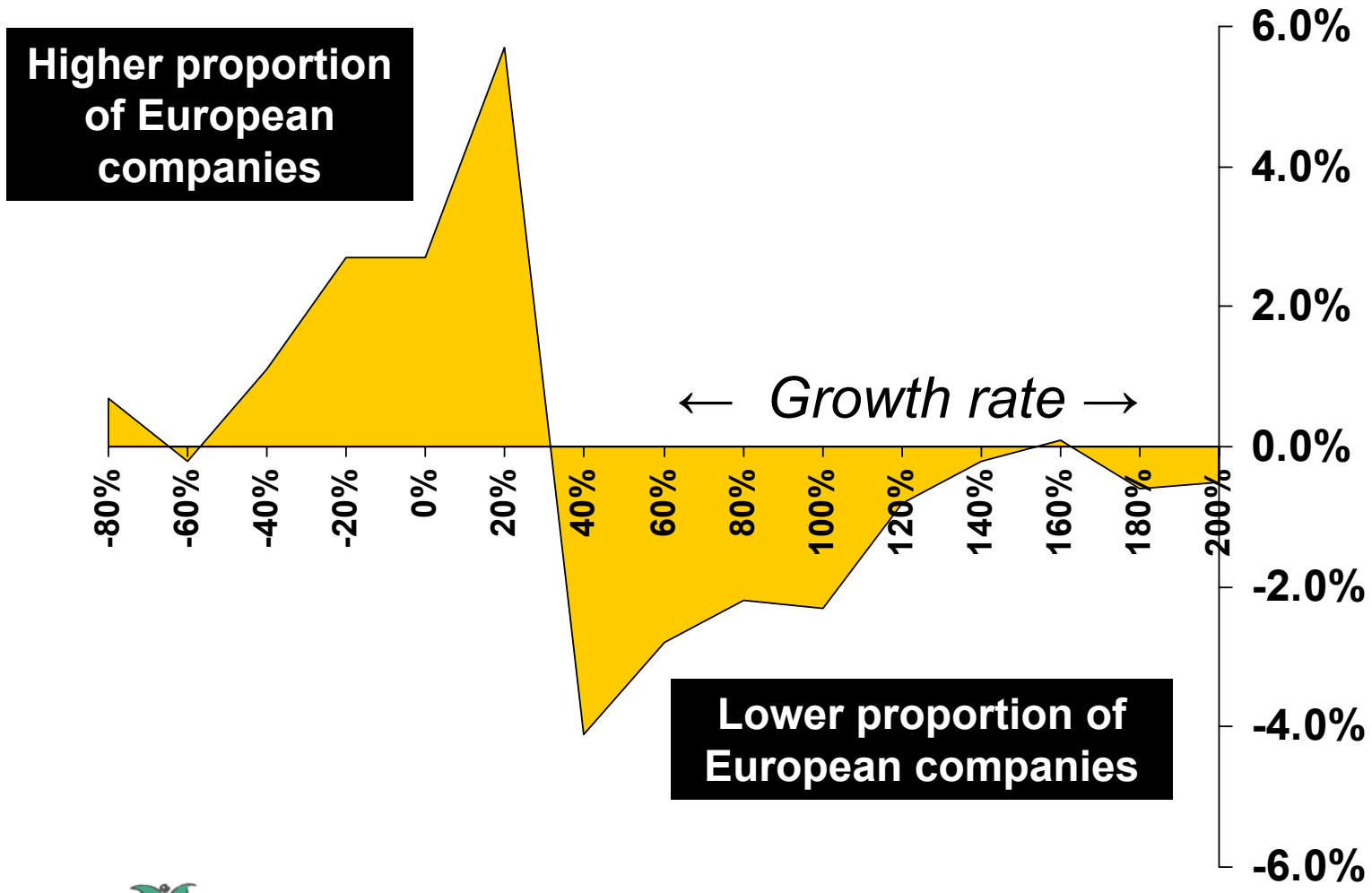
More US companies grow at faster rates



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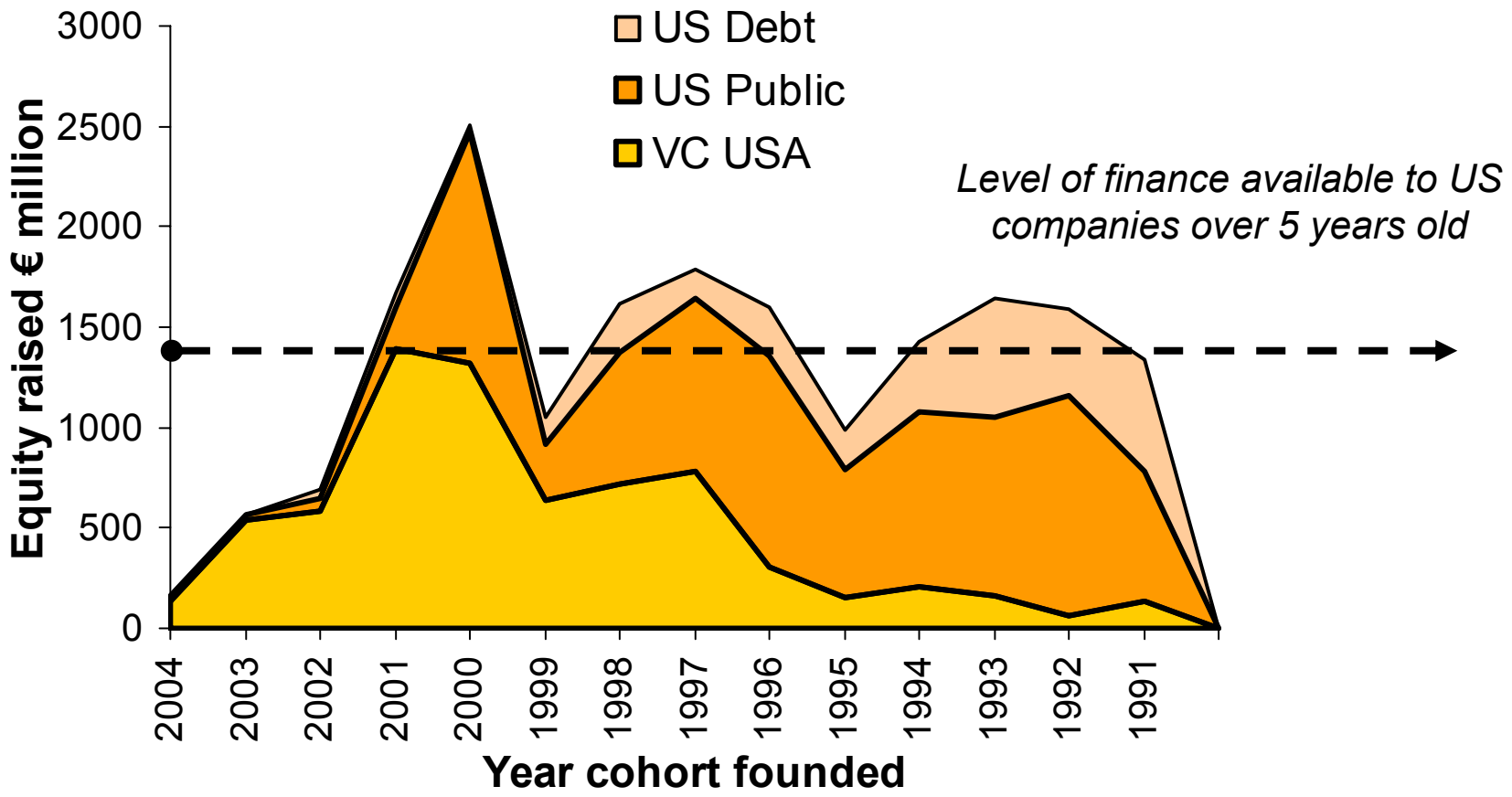
Smaller, slower and less likely to survive

- Europe's companies transition to the next level more slowly
- Europe has more companies …
  - That don't make large revenues
  - That don't employ many people
  - That don't spend much on R&D
- And its companies are less likely to survive

One of the explanations is finance

The gold standard - US finance arrives in waves



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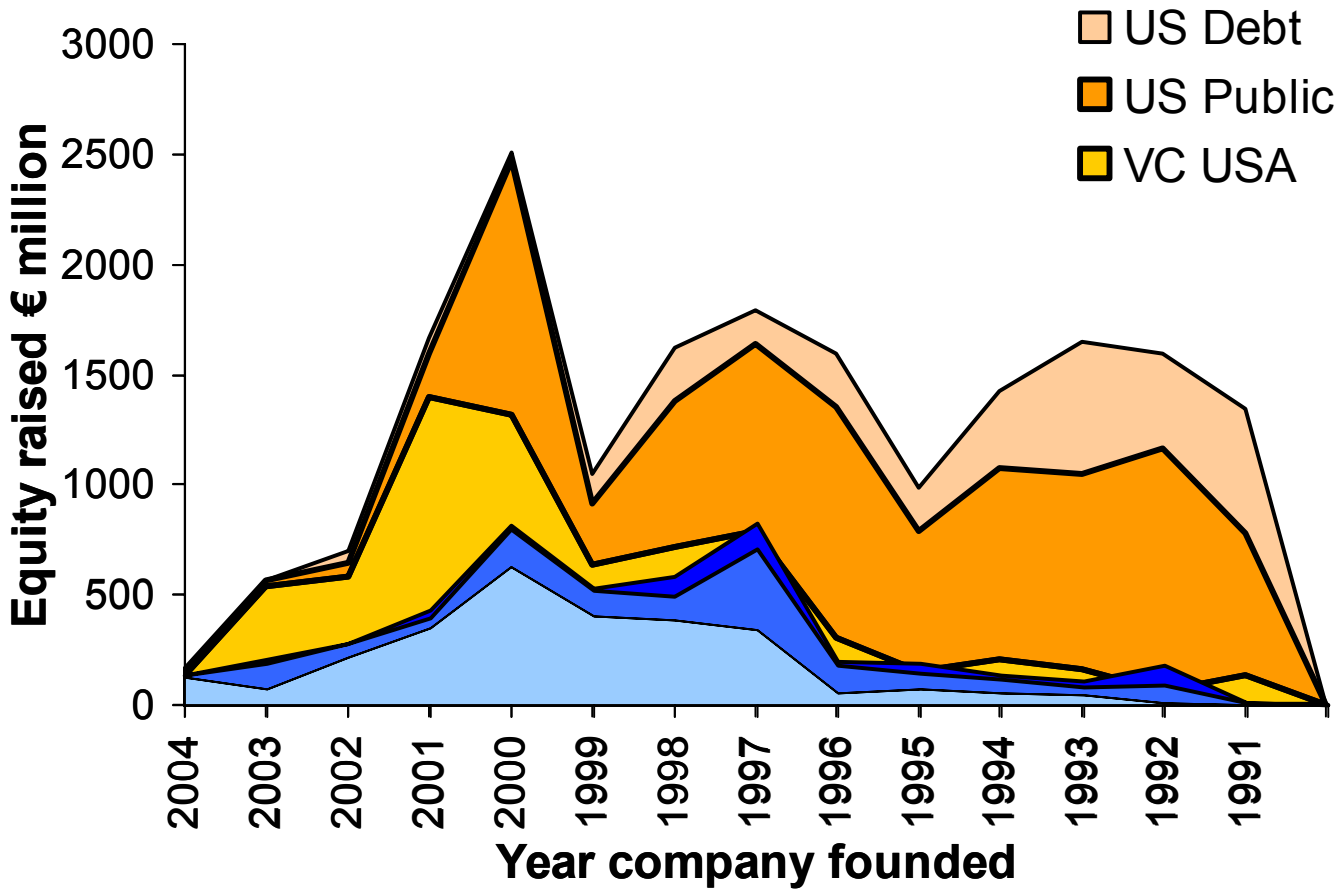
European financing in the context of US financing



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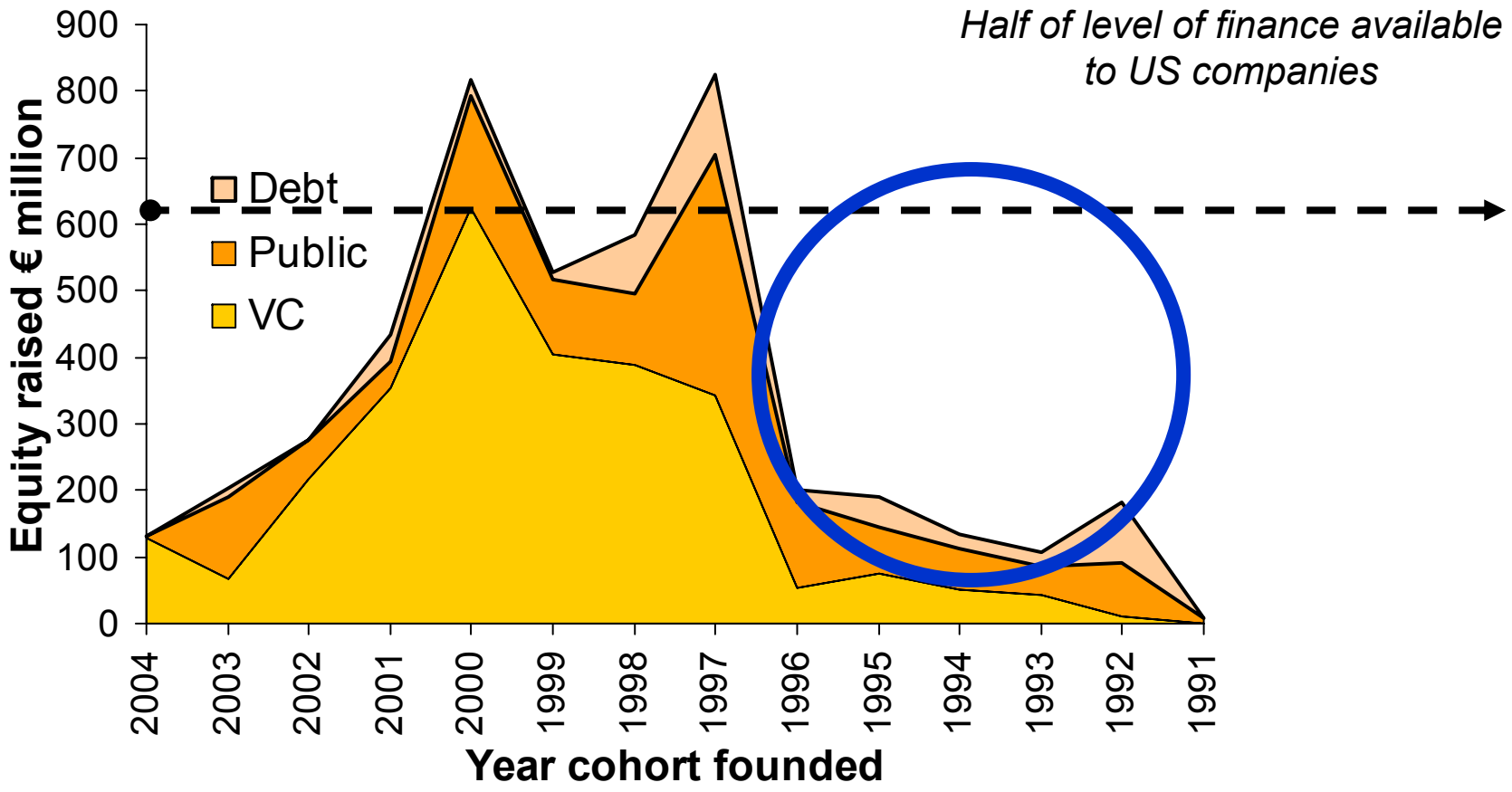
Zooming in on European finance



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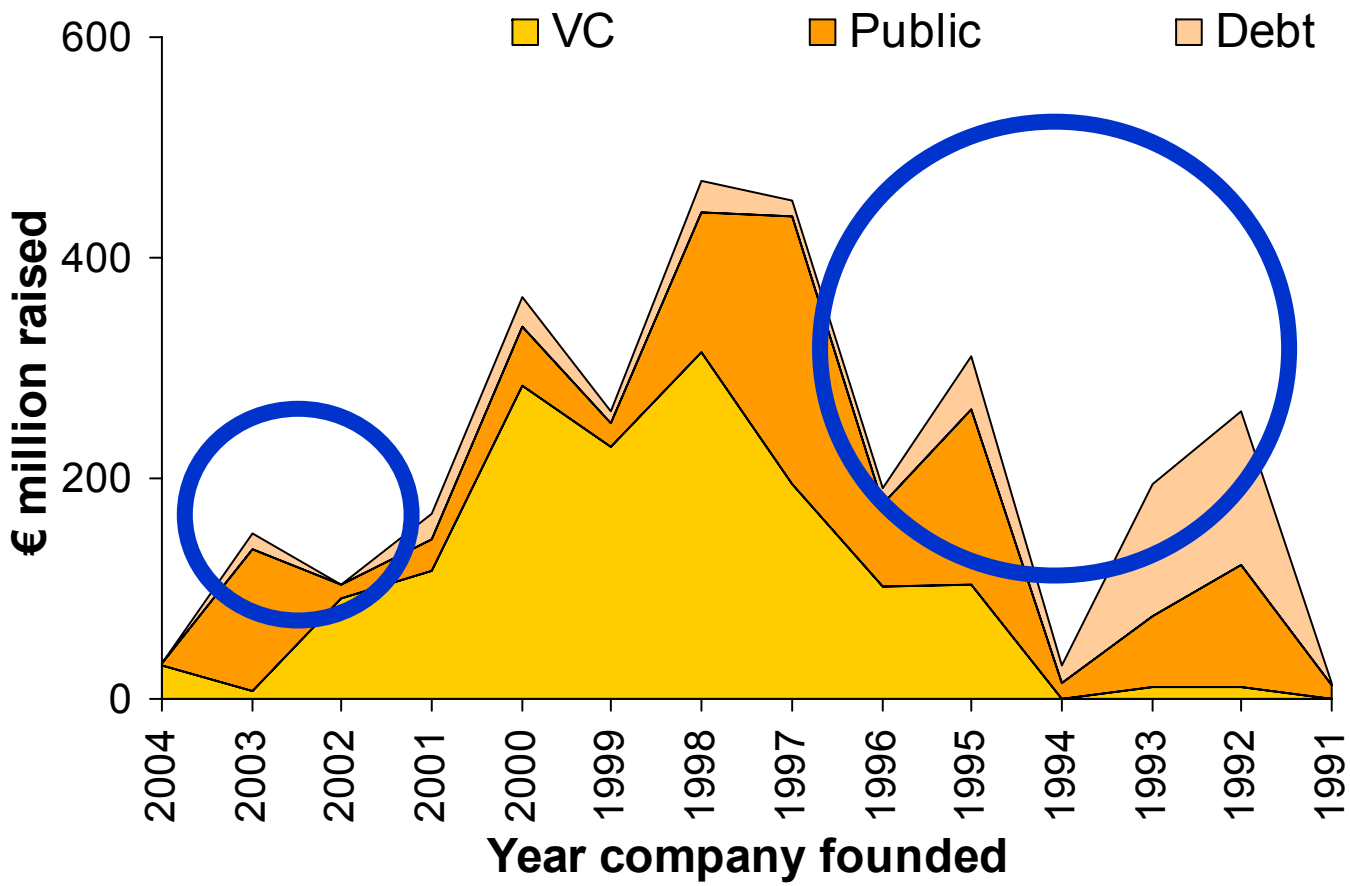
… and if you take out the UK



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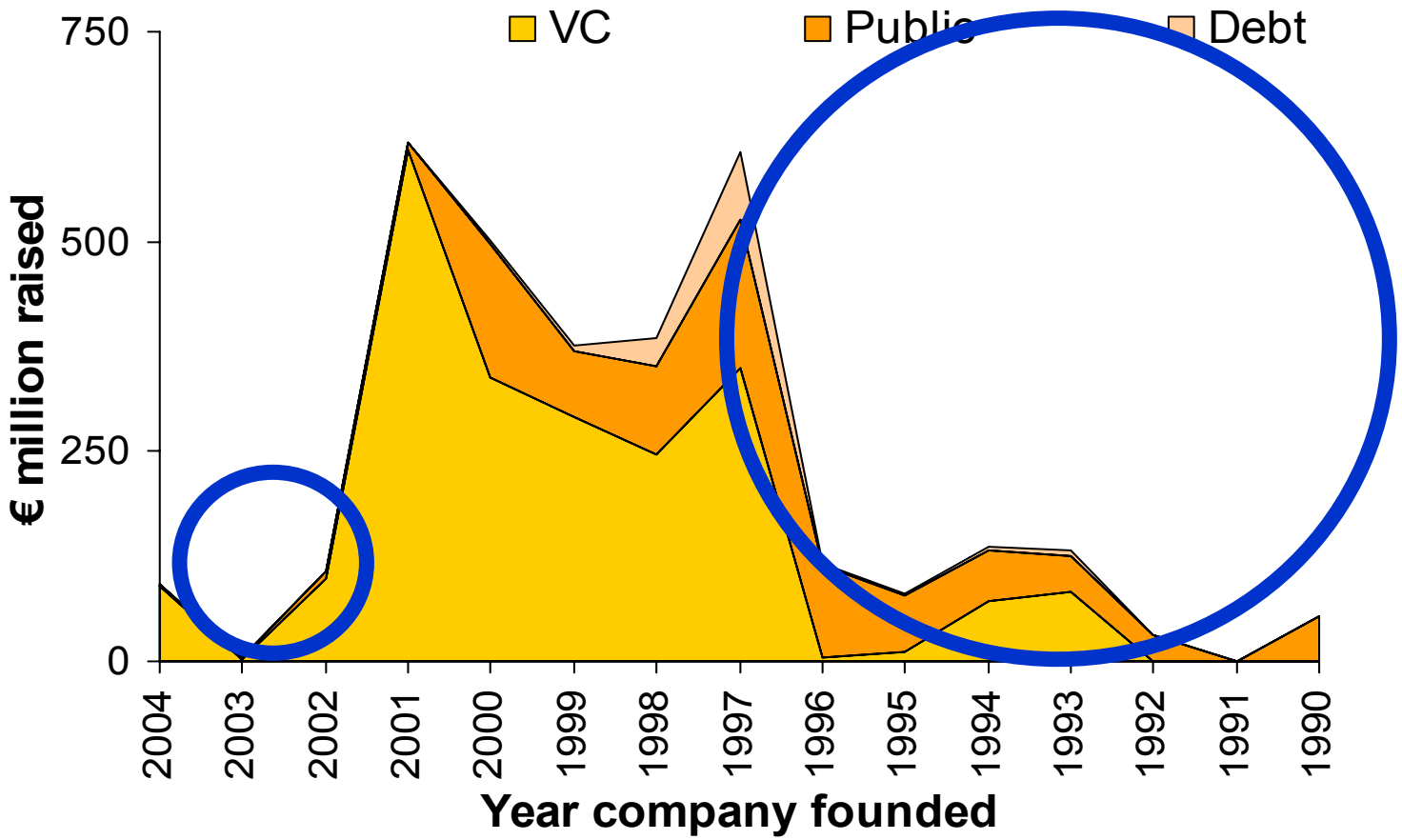
Non-UK Europe finance profile



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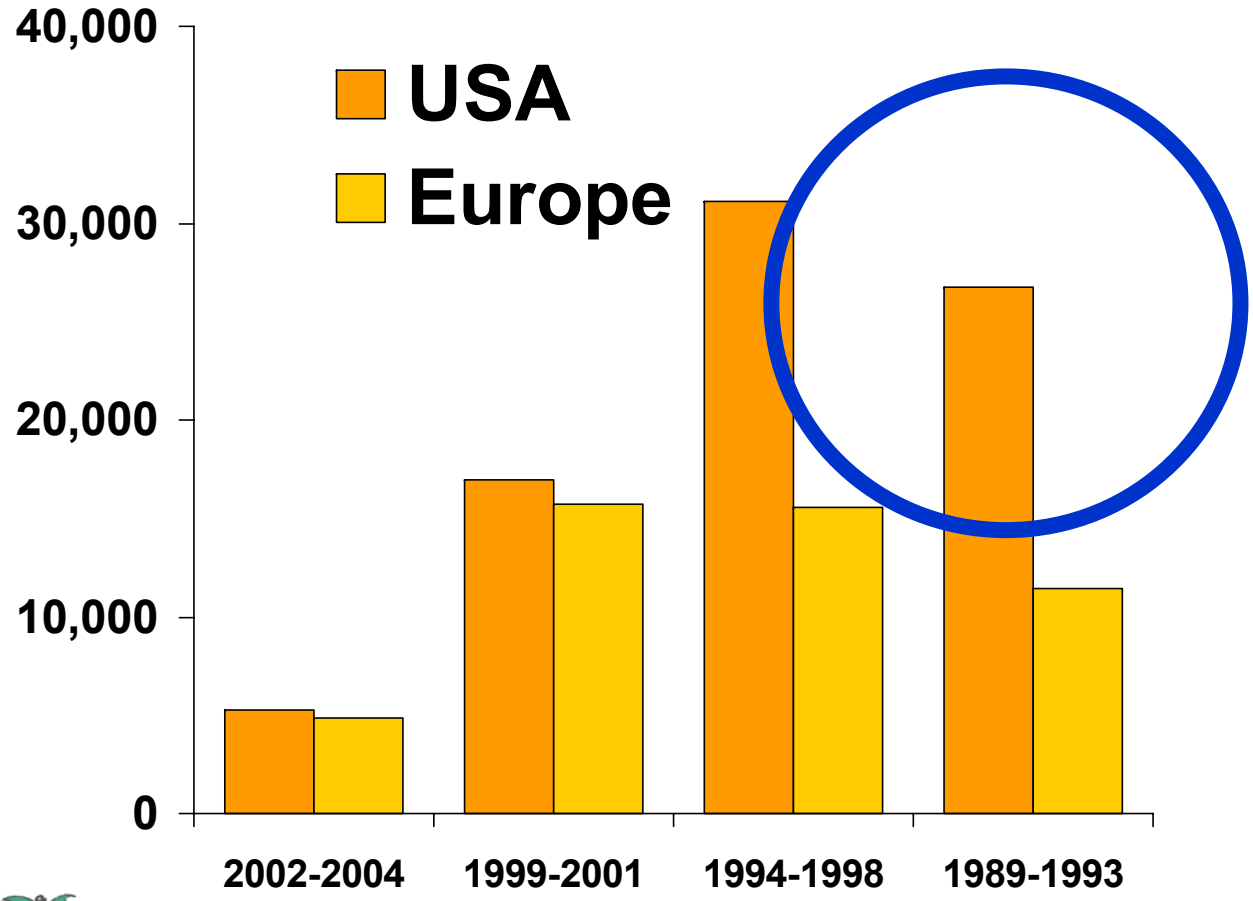
European finance summary

- Lower amounts overall
  - US venture capital alone is more than European finance (VC, Public, Institutional, Debt)
- European finance is venture capital only
- European finance focused on companies of 3-7 years old
- Funding gap before 3 years
  - companies may not be ready
- Financial precipice after 7 years

.. But the older companies need finance, too



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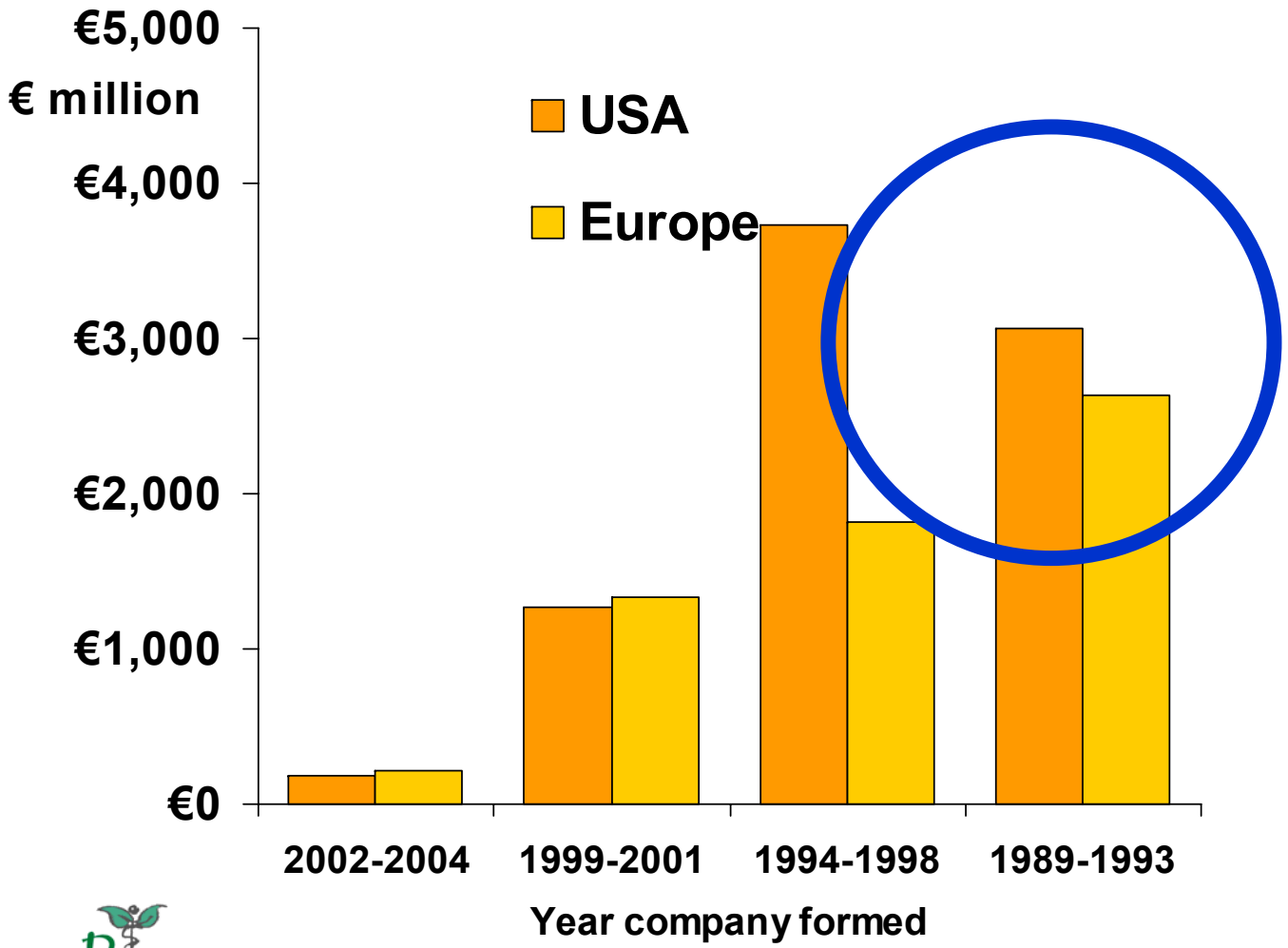
… these are also the revenue generating companies



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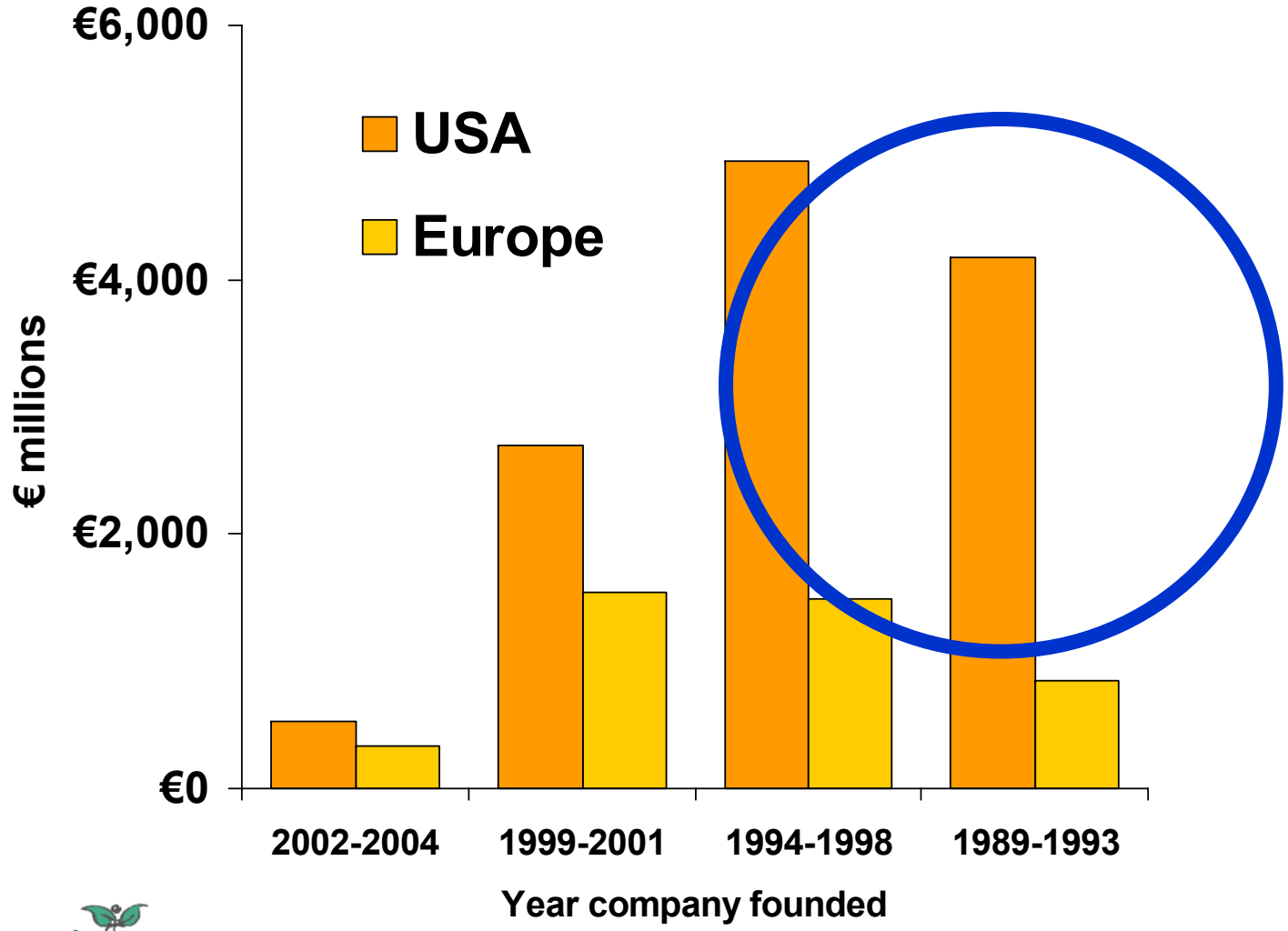
… and the ones which invest most in R&D



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European companies will find their own solutions

	Company	Details
1999	BioVex (UK)	Moved HQ to US; U.K. R&D operations retained in UK
1996	Cyclacel (UK)	Reverse merger into Xcyte Therapies (USA); R&D kept in UK; raised €45 million in US placement
2000	Domantis (UK)	Will create Inc. in 2006, keeping R&D facility in UK
2000	Lorantis (UK)	Acquired by Celldex (US), two-thirds UK R&D facility retained
1999	Microscience (UK)	Acquired by Emergent BioSolutions (USA); UK R&D facility retained
1998	Solexa (UK)	Reverse merger Lynx (USA): filed $100 million shelf registration
1993	Micromet (D)	Reversed into CancerVax (USA): retained German R&D; filed US Shelf registration
1997	GPC (D)	Raised €36 million in placement to fund product development
1999	Genmab (DK)	Raised DKr 845 million in follow-on public offering
1996	Nicox (F)	Raised €45 million in follow-on (85% from US investors)
1993	IDM (F)	Reversed in Epimmune: plans to raise finance in US

Conclusions – Europe is a greenhouse

- Europe is a greenhouse for R&D intensive biotechnology firms
  - Many companies are established, some are unsustainable
  - Most European firms meet the YIC definitions!!
- Cultivating fully grown companies is hardly permitted because
  - European companies grow more slowly than US counterparts
  - They cannot or do not raise sufficient venture capital backing
  - European firms face a “finance precipice” after 7-10 years of growth

Conclusions II

- Investors apply a global standard in making investments
- As they age, European companies receive proportionally less of the investment cake because fewer of them meet the investment standard
- Adequately VC-funded European companies (a minority) can compete with US cos, but cannot access public equity or debt finance in Europe
- European firms “Americanise” to access US finance markets though
  - Merger and acquisition (reversing into US vehicle)
  - Relocation of operations or HQ
  - Attracting US investors

Current messages

- The data tells us:
  - Europe is not as big in biotechnology as the USA
  - Some national sectors are bigger than others
  - Europe underinvests in its biotechnology
  - Europe “plays” at biotechnology but is not prepared to win
  - European companies may be wasting their efforts and other people’ money because of underfunding
  - European companies, in general, fail to meet international standards and therefore fail to attract international capital and resources
  - Lack of strategic funding means European firms are prey not predator in M&A
  - Building value necessitates overcoming hurdles in the European infrastructure
  - Collaborations occur through geographical proximity rather than strategic fit