



Strategies for coordinating innovation policies in Sweden

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Structure of the presentation

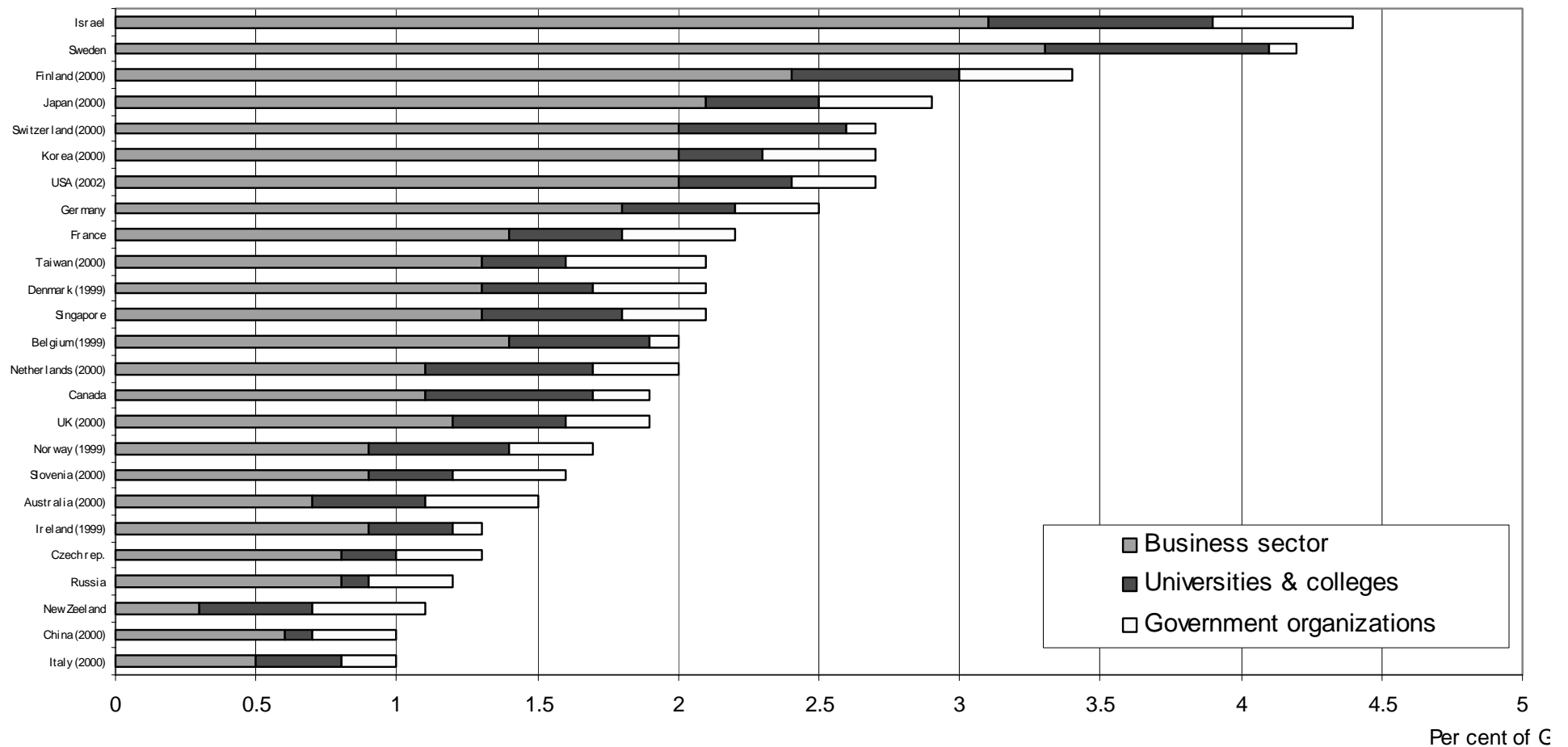
- Performance and structure of the Swedish innovation system
- Policy challenges
- Structure of public R&D system
- Lack of coordinated innovation policy
- Regional innovation policy

A Swedish paradox ?

- Strong investment in R&D



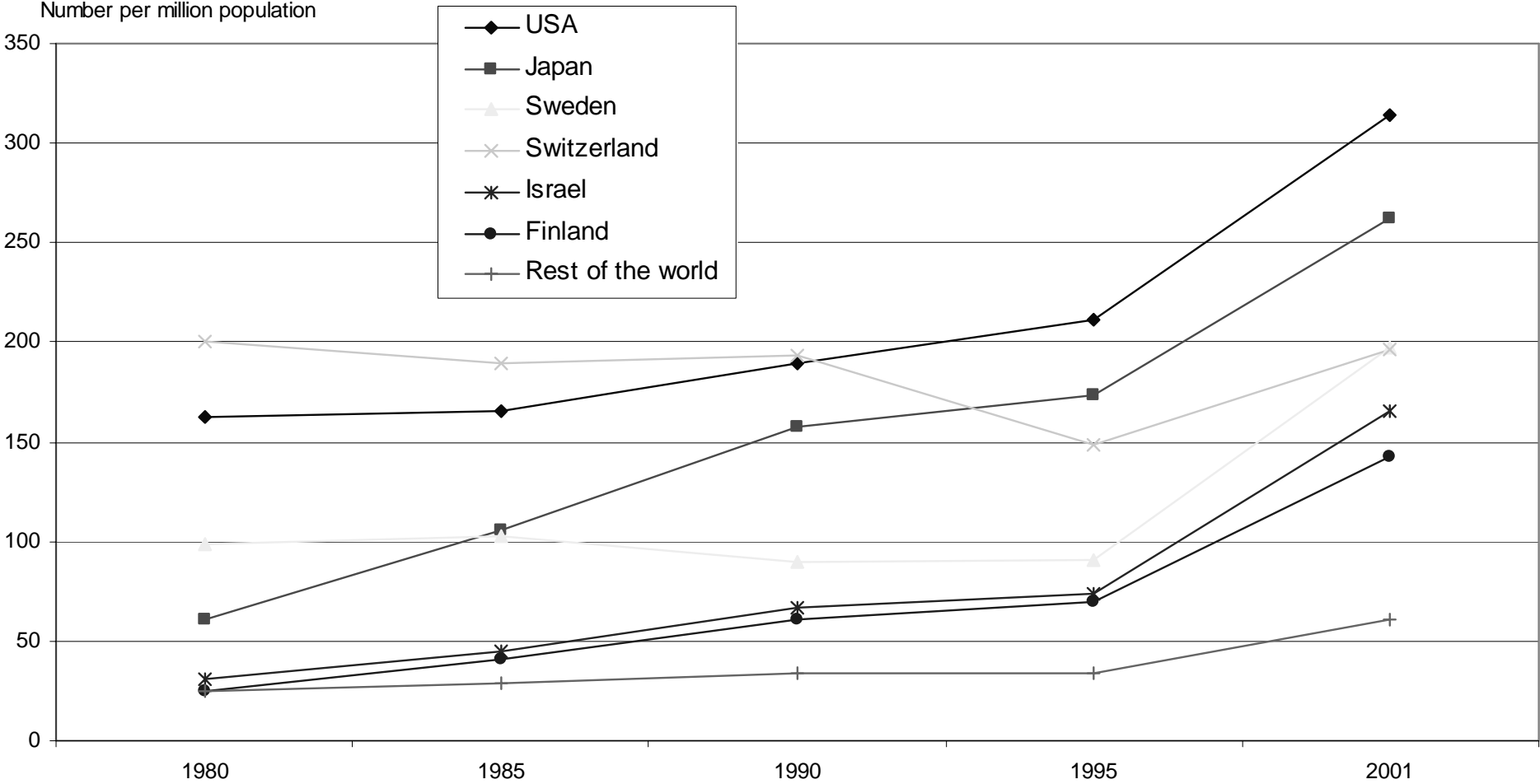
R&D expenditure in relation to GDP 2001



Source: OECD, MSTI, 2003



Number of patents in the USA (USPTO) per million inhabitants 1980-2001



Source: CHI Research Inc, 2002

R&D is highly concentrated..

- 65% of all R&D expenditures in 20 firms
- 73% in firms > 1000 employees

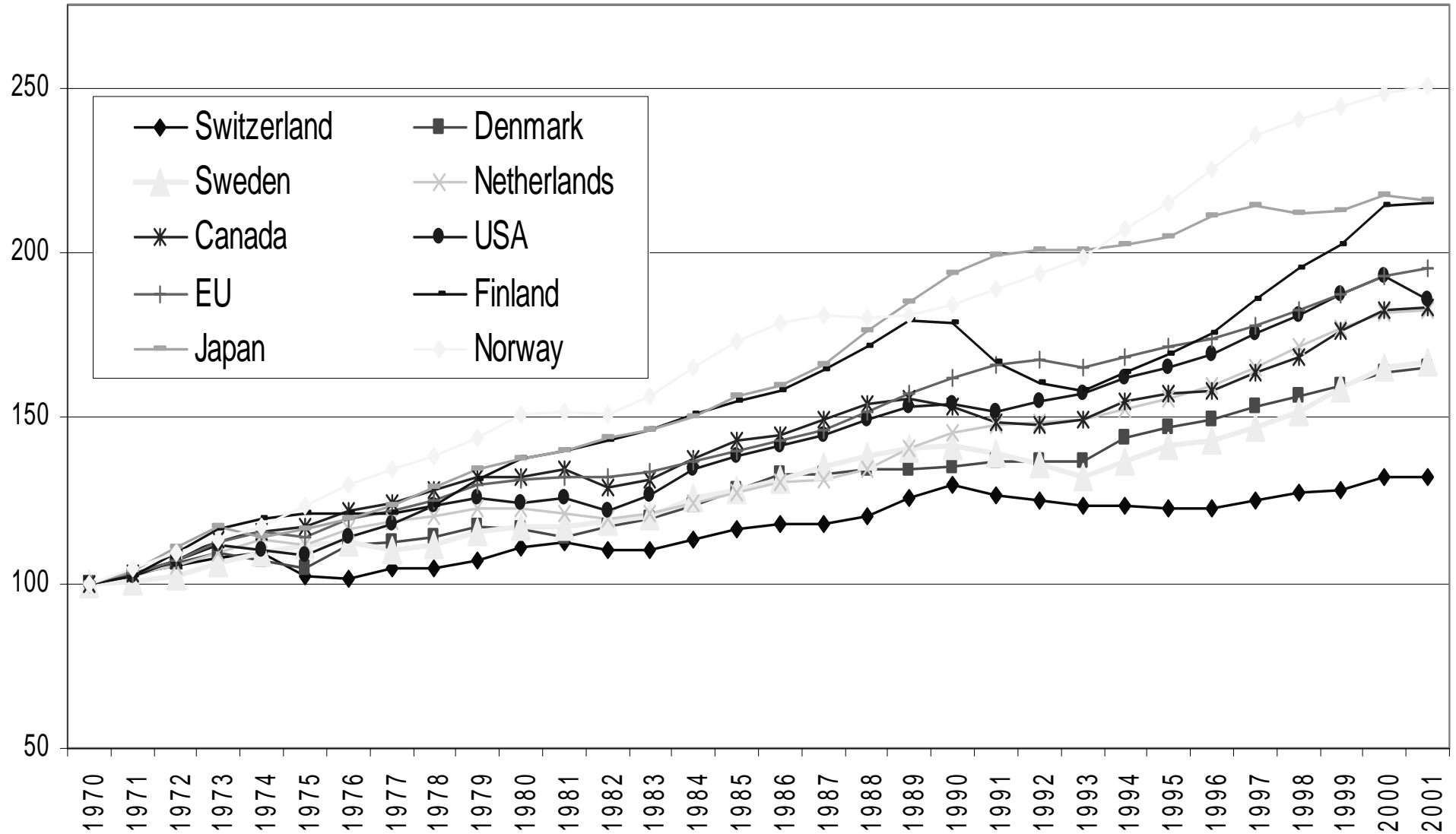
A Swedish paradox (2) ?

- Below average economic performance..



Index (1970=100)

Index of real GDP per capita 1970–2001 (PPP USD)



Source: OECD MSTI, 2003

The old "Swedish model"

- Industry concentrated to a few large, R&D-intensive groups
- Innovation driven by public-private user-producer "development pairs"
- Public acceptance of rationalization
- Policy supports national flagships
- No obvious need for innovation policy?

The "Swedish model" is gone..

- Large, R&D-intensive firms now part of global groups – no sentimental ties..
- Development pairs broken
- New policy challenge: To compete for high value-added investments
- Need for a comprehensive innovation policy ?

Policy challenges

- Consensus on the need for an innovation policy
- A common comprehension of what innovation policy is

Policy challenges (2)

- Start-up, innovation and growth in knowledge-intensive SMEs
- Improved supply, use and mobility of human resources
- New regime for user-producer public-private partnerships
- Increased volume and impact of mission-oriented research

Weak vertical coordination

- Small ministries and large agencies
- New Public Management / MBO
- EU membership has increased workload on small ministries

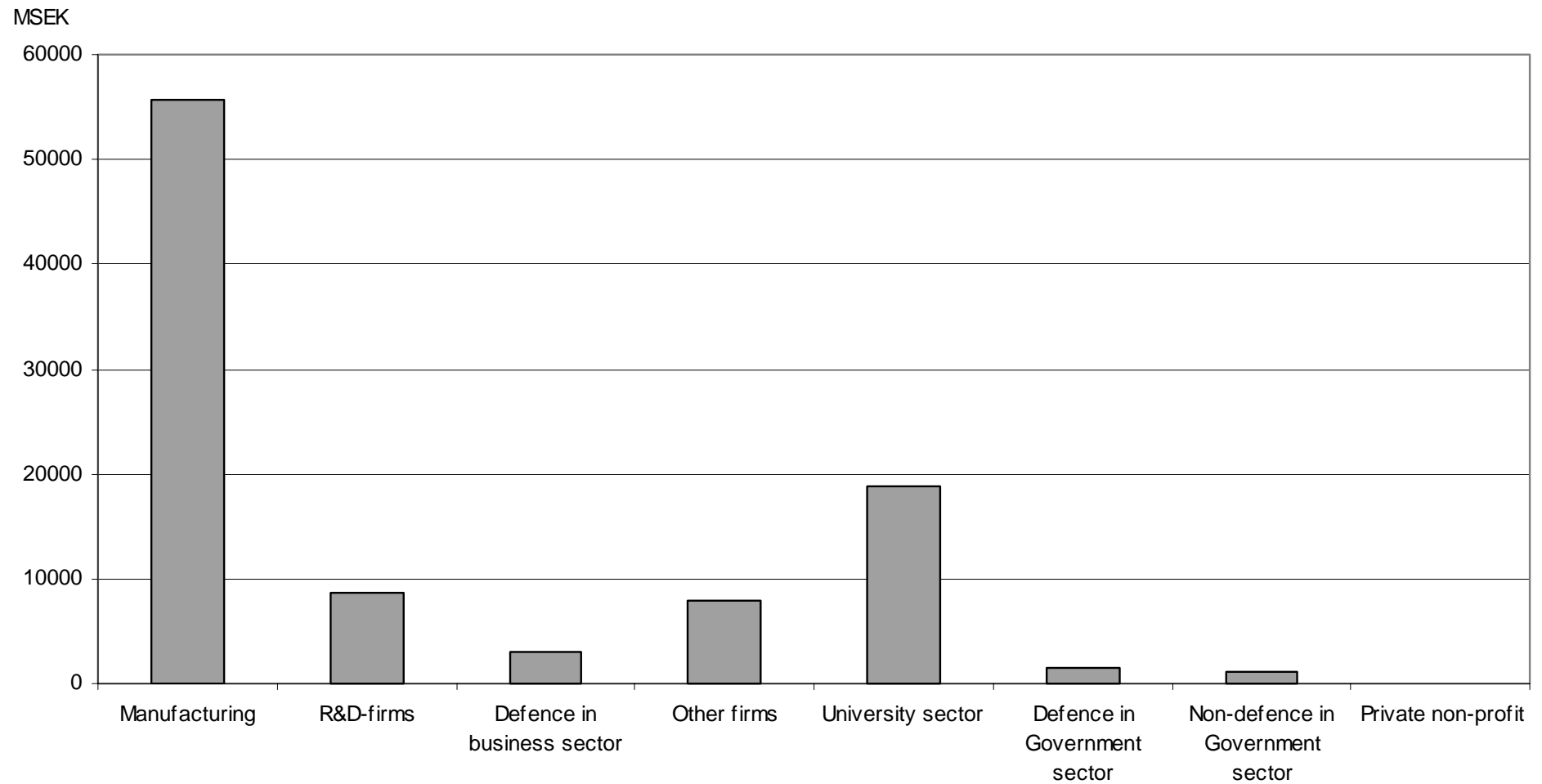
Strong belief in basic research..

- + Discourages bureaucratic intervention
- Discourages any real strategy at all..

Structure of public R&D system

- Strong focus on university research
- Small sector of applied institutes
- Low share of technical research

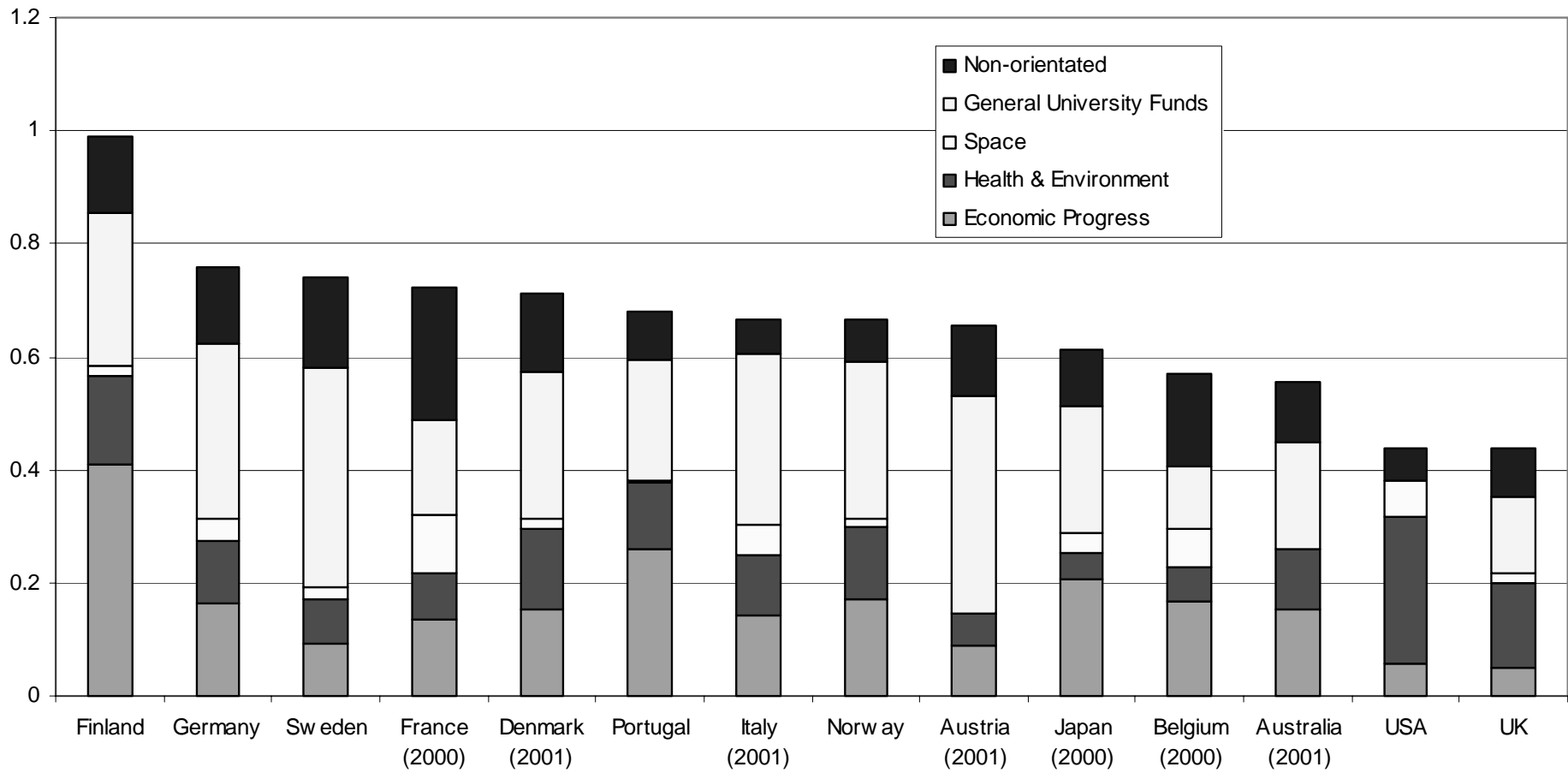
R&D expenditure in Sweden 2001 by performing sectors



Source: Statistics Sweden, 2003

Government-financed civil R&D in relation to GDP 2002

Per cent of GDP

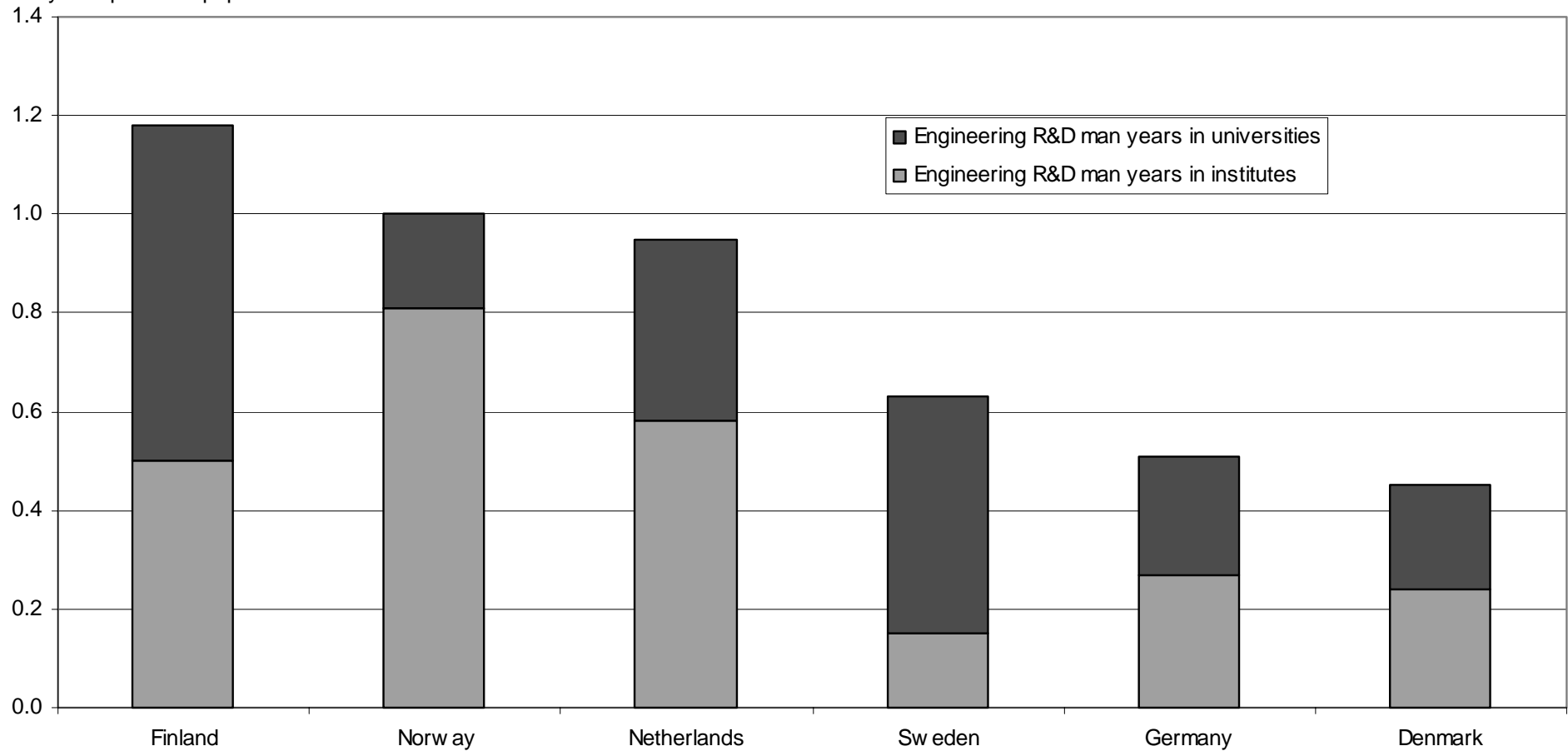


Source: OECD MSTI, 2003



Engineering R&D in universities and institutes 2001

Man years per 1000 population



Source: INNO & Technopolis "Benchmarking Technology R&D" 2004

Innovation governance ?

- Persistent belief in the "linear model" of innovation – basic research leads to commercially successful innovation
- At the same time widespread acceptance of an innovation systems perspective..

New focus on growth ?

- "No to Euro" increases demand for growth policy
- Social Democrats party conference 16-18 april, focus on growth



An innovation strategy after all ?

- A joint project between the Ministry of Industry, and the Ministry of Education and Science

Innovation strategy – main points

1. World class education and research
2. Strategic focus
3. Public sector as engine for growth
4. Commercialization of research results
5. More innovative SMEs
6. Mobility of human resources
7. Internationalization

From regional subsidies to regional innovation policy

- New regional industrial policy in 1998
- From "top down" to "bottom up"
- Network or cluster philosophy
- Inspired by EU Structural Funds, Michael Porter etc.

Regional growth programmes

- Broad public/private partnerships
- Based on analysis of regional needs & opportunities
- Retarget available public funds
- Strong innovation focus
- Weak industrial committment ?