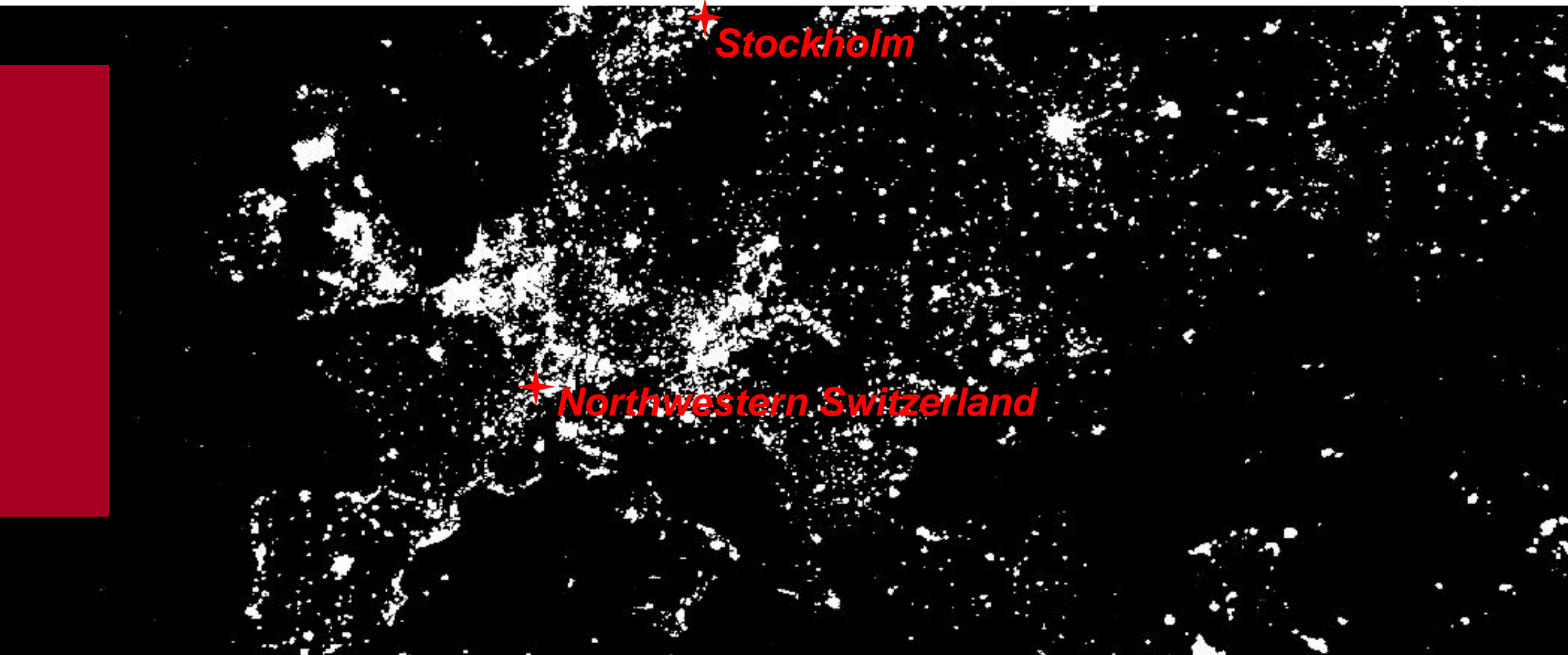


A robust cluster with limited policy intervention – regional strategies to support the biotech sector in Northwestern Switzerland

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A quiz at the beginning

Who has gained the “Nobel Prize for Physiology or Medicine” more often – Swedish or Swiss scientists?

The Swiss:

- 1909 Emil Theodor Kocher
- 1948 Paul Hermann Müller ←
- 1949 Walter Rudolf Hess
- 1950 Tadeus Reichstein ←
- 1978 Werner Arber ←
- 1992 Edmond Henri Fischer
- 1996 Rolf M. Zinkernagel ←

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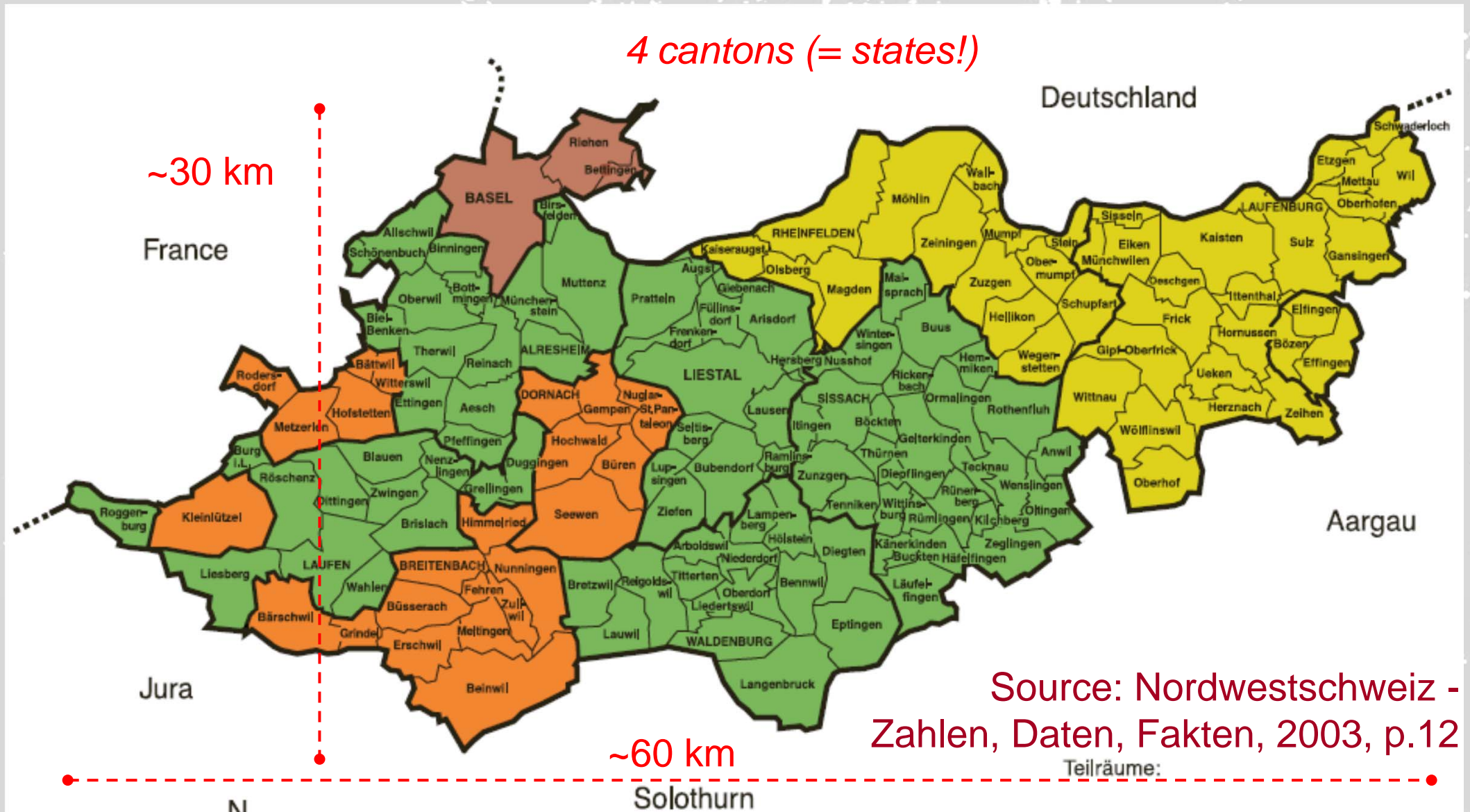
The Swedes ...

... follow at the end of the talk

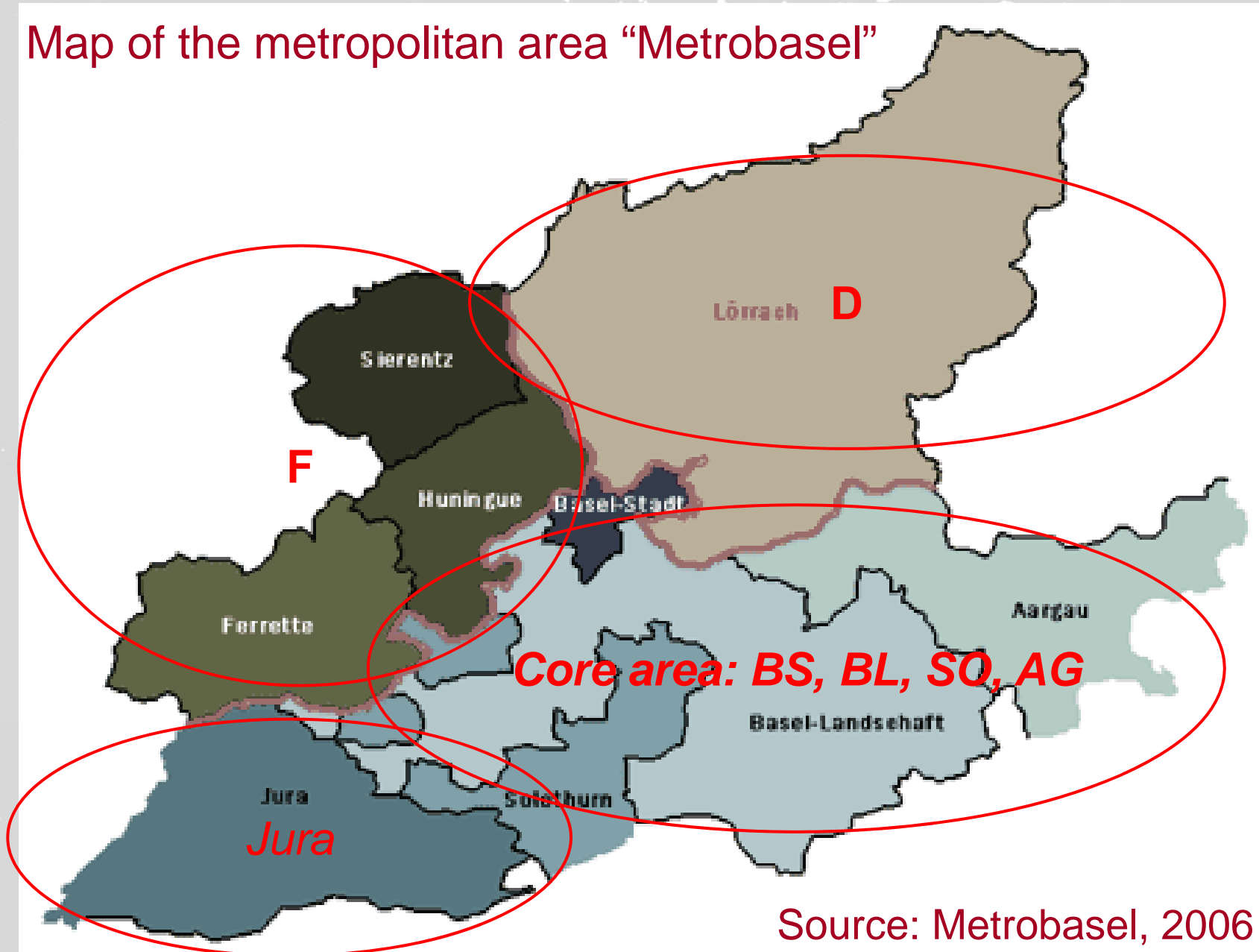
Contents of this talk

- A few facts on Northwestern Switzerland
- The life science cluster in Northwestern Switzerland
- The role of regional policy on development in the life sciences

Where and what is Northwestern Switzerland?



Map of the metropolitan area "Metrobasel"



Source: Metrobasel, 2006

A few figures on Northwestern Switzerland

Region	Average population 2004	% of CH	GVA 2004 (in % of CH)	GVA per capita index (CH = 100)	Unemployment rate 2004
Northwestern CH*	551'500	7.4	8.6	115.2	3.8
Zurich	1'838'700	24.8	29.2	117.6	4.2
Eastern CH	986'200	13.3	11.5	90	2.8
Espace Mittelland	1'656'500	22.4	19.5	87.4	3.2
Arc Lémanique	1'360'000	18.4	17.7	96.6	5.6
Central Switzerland	695'700	9.4	10.2	102.9	2.8
Ticino	316'500	4.3	3.3	76.8	4.5
Switzerland	7'405'100	100	100	100	3.9

* BS, BL and neighbouring districts of AG and SO

The life science cluster in Northwestern Switzerland

- Large MNCs in chemicals, pharmaceuticals, agro-chemicals (Novartis, Roche, Ciba Specialty Chemicals, Syngenta, Clariant)
- Many SMEs (~ 70 in biotech + many more in other life sciences areas)
- 28000 (10.7%) employees work in chemical and pharmaceutical industry (CH: 1.6%)
- Estimated GVA growth 1995-2004: ~10% p.a. (Feuz et al., 2006)
- Employment growth
- 1996 events increased dynamics:
 - Ciba-Geigy + Sandoz = Novartis
 - Hoffmann-LaRoche focuses on core competencies
 - Spin-offs, Novartis Venture Fund

Strengths and weaknesses of the cluster according to regional experts

	Strengths	Weaknesses
Firm structures	„Healthy“ firm mix: start-ups, SMEs, MNCs	Low rate of new firm foundations
Capital	Several funding institutions for seed capital	Pre-seed funding problematic, little public support at pre-seed, seed, or later stages
Labour	Cross-border recruitment, several training programmes	Shortage of qualified labour
Innovation system	Above average innovativeness of private firms	Weak links between science and industry
	Strong universities and PROs	Not enough resources for attracting „scientific stars“
Governance	“Globalised location”: Trinational region with 2 languages and 3 political systems	Political fragmentation, small spatial perimeters, low level of integration

Has regional policy contributed to the development of the life science cluster?

- **Not at all!**
 - in particular: no region-wide cluster policy
 - in general: cross-cantonal initiatives are rather weak and mainly oriented to coordination and location marketing
 - **Maybe, but at best indirectly. All cantons follow these rules:**
 - No industrial policy or micro-steering of the cantonal economy

Core focus of economic policy on

 - Reduction of governmental spending and taxes
 - Liberalisation and deregulation
 - Provision of infrastructure (e.g. higher education, transport)
- **Cluster development is driven by firms.**

Some initiatives at sub-regional level:

- Life Sciences promotion activities of the Cantons Basel-Town, Basel-Country and the Basel Chamber of Commerce
- BioValley project
- Metrobasel initiative
- Bern Cluster Policy

Life Sciences promotion activities of the Cantons Basel-Town, Basel-Country and the Basel Chamber of Commerce

- Basel cantons and Basel Chamber of Commerce have always been aware of the cluster and addressed the needs of its firms.
- New initiative with five strategic fields:
 - Basic scientific research
 - Support to life science SMEs
 - Location development oriented specifically to the Life Sciences
 - Location marketing
 - Support organisations and their funding (increasing competencies of the local business development office and Chamber of Commerce)

Supporting scientific research and KTT

Basis: strong existing organisations in the life sciences

- Basel University & University Hospital
- Swiss Tropical Institute
- Friedrich Miescher Institute
- + new School of Life Sciences at FHNW
- + new ETH Center of Biosystems Science & Engineering
- + recent KTT initiative by the national transfer agency CTI to improve transfer science - industry
- + world leading LS research within 90 minutes travel in Zurich, Bern, Freiburg (D) and Strasbourg (F)
 - cross-regional & international training offers and transfer networks

BioValley project

- Started as a trinational EU Interreg project in 1997
- Core objective: promoting cooperation between firms and science, establishing a dense network committed to technology transfer
- Main activities:
 - Marketing and PR
 - Cooperation support (roundtables, meeting points, networking)
 - Small-scale financial support on project basis
- Critical position of local experts regarding the BioValley:
 - Valuable as a trademark.
 - Added value: little for large firms and unclear for SMEs
 - National interests still have a strong influence

Summary

- The life sciences cluster in Northwestern Switzerland is strong and growing.
- Economic policy is little integrated across cantons.
- Focus of cantonal (and federal) policy on
 - science, research, knowledge and technology transfer,
 - improvement of location factors,
 - location marketing,
 - support associations with leadership in private business.
- Added value of clustering and networking activities still has to be proven.

Nobel Prize for Physiology or Medicine – Swedish and Swiss price winners

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1948 Paul Hermann Müller

1949 Walter Rudolf Hess

1950 Tadeus Reichstein

1978 Werner Arber

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1996 Rolf M. Zinkernagel

$\Sigma 7$

The Swedes:

1911 Allvar Gullstrand

1955 Axel Hugo Theodor Theorell

1967 Ragnar Arthur Granit

1970 Ulf Svante von Euler

1982 Sune Karl Bergström

1982 Bengt Ingemar Samuelsson

2000 Arvid Carlsson

$\Sigma 7$

