



## Promoting women in the sciences at Lund University

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### Sweden a paradise of gender equity

- Family friendly government policy
  - Paid parental leave up to 15 months (either parent)
  - Government subsidy until 18
  - High-quality, low-cost daycare
  - Good schools, with well organized after-school caretaking
  - Antidiscrimination laws
- Graduate students who have a postgraduate research position take paid parental leave
- Younger researchers (assoc professor) on parental leave can extend their position by twice the leave period (Lund Univ)
- Quotas for committees, external experts, boards, etc



## Higher education

- In 1988 federal goal: science and technology programs should have at least 30% women
- Government gender bills on higher education aim to *make the fullest possible use of the quality potential based on cooperation between the sexes...*
- Academic positions can be obtained *only on the basis of scientific merits*
- Tradition eroded by reform in 1990s



Professorships now in the hands of universities, promotion to professor possible

Research positions now created both by universities, and by outside funding agencies

Little mobility

Swedish PhDs usually over 30

Full professors appointed by the government could not be fired

## Lund... a long history of traditions



- A leading religious, academic and cultural centre in all of Scandinavia in the 12th century
- First university was Danish (1400s)
- Became Swedish in 1658
- Bishop 's seat in Lund
- City dominated by students (Sweden 's best student city)
- 100,000 inhabitants many connected to University

# Lund University



Founded in 1666

First female student 1880

First female professor 1965

40,000 students

2,300 graduate students

500 PhDs (2008)

1,300 teachers (27% women)

558 professors (16% women)

Eight Faculties

Medicine

Law

Sciences

Humanities and Theology

Social Sciences

Engineering

Economics and Management

Fine and Performing Arts

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# Science Faculty

1600 undergraduates

400 active PhDs 45% women

119 professors, 10 women\*

100 assist prof, 29 women

100 assoc prof, 37 women

*One of the two faculties which has fully financed professor chairs at LU*

Faculty leadership: 3 deans, heads of department

Biology

Chemistry

Physics

Astronomy

Mathematics

Physical Geography and Ecosystems

Geology

Ecology

Theoretical Physics

Medical Physics (joint with Medical School)

Environmental Sciences



## Programs aimed at career development for women scientists

Women in Great Sciences Network (WINGS)

Mentor program for female junior scientists

Program for Heads of Departments

Recruit high-quality female scientists to key areas

Support for female guest professors

Fully financed female professors\*

## WINGS

- Originated in the geology department in 2003
  - Meeting place for female graduate students and faculty
  - Career issues and gender in workplace
  - Participants noticed that they were informed, aware of current opportunities, and could influence decisions in the department
  - The potential of the concept is realized
- Funding for first WINGS program granted by the faculty in 2007



## WINGS



- Permanent network in place
- *Research in progress* (Forskning pagar) in 2008, 2009
- Regular lunch seminars by women scientists
- Contact with women in academia, industry, research institutes and funding agencies
- Awareness
  - Career development
  - Funding and academic networking
  - Women scientists in Oresund region
  - Faculty leaders
  - Awareness of ongoing scientific research, new opportunities

## Summary-WINGS

- Broad, cross faculty network aimed at women at all levels
- Focus on research, scientific goals and networking
- Grass-roots initiative
- Long-term planning requires both active younger and more senior scientists, and to have access to larger national and international networks
- Some male scientists are involved, more would be very positive
- Can be a platform for future initiatives within the faculty
- About 50 women are active, most are graduate students
- Very cost effective

## WINGS Research in progress 2008



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## Science faculty mentor program

- Universities are ' traditionally ' bad at utilizing the expertise and talent of women scientists
- Many factors contribute to the situation at hand
- Mentor programs contribute to the *social capital* of women
  - Understanding the rules of the game
  - Developing important networks
  - Awareness of potential pitfalls in career choices
- Mentors are carefully chosen, and are trained in the course of several meetings and seminars
- Adeptes interact with mentors, but also with each other



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## Mentor program: Goals

1. Provide useful tools for career planning both academic and outside of the university
2. Raise awareness of issues which stand in the way of women scientists who pursue an academic career ... for both adepts and mentors
3. Create a network between adepts and between adepts and mentors
4. Strengthen mentoring skills, and in the long run, the academic leadership skills of mentors
5. Faculty deans get feedback on effectiveness of projects, initiatives and suggestions for



## Facts about the mentor program

- 16 adepts chosen from 30 applicants
- Mentors nominated, criteria:
  - Role models
  - Experienced, respected faculty
  - Leadership philosophy
  - View women scientists as valuable resource
  - Genuine interest in leadership, promoting change, people
- Careful matching process
- Role of faculty deans
  - Periodic follow up discussion with project leader



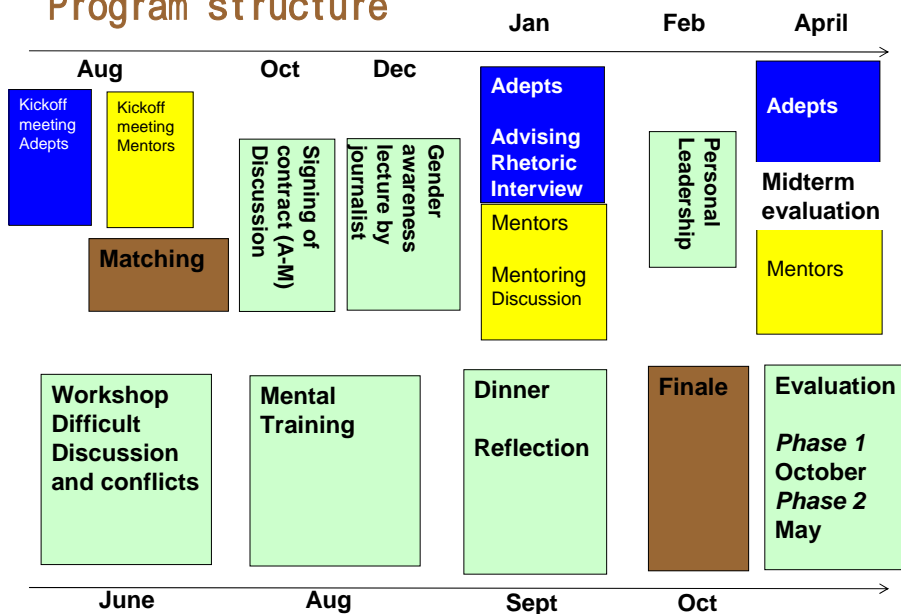
## Program content

- Project leader: adept, 1 month salary
- Professional consultant (MiL Institute, leadership consultants)
- Kickoff meetings for adepts, mentors (overnight meetings)
- Contract between mentors and adepts
- 6 Seminars (full and half-day seminars)
- 4 meetings for mentors and adepts together
- Mid-term evaluation
- Finale and evaluation with heads of departments and deans
- Follow up what happens afterwards



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## Program structure



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## Outcomes of mentor program

- Adepts feel that they have the ability to influence their career directions in a more positive way, a better understanding of factors important for scientific development, and of the expectations employers have, and how to achieve important goals
- Adepts are in a better position to make a decision on their future careers to stay or to leave becomes an active choice
- WINGS becomes a faculty-wide program
- Very clear picture of where to work on equal-opportunity issues...

New program for working with heads of departments initiated by deans

Aim for a more responsible approach to leadership

## Summary-Mentor program

- **Program I: Started 2002**
  - Focus on adepts
  - 14 younger researchers in program
  - Most goals achieved
  - Work with mentors & decision makers
  - 60% in academia 2008
- **Program II: Started 2006**
  - 16 younger researchers in program
  - Focus on needs of adepts, and mentor's training
  - Department heads participate
  - Led to spinoff project
  - Led to WINGS expansion
  - Cost: approx \$50,000



## Dialog with Department Heads

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To ensure a fair selection  
you all get the same test.  
You must all climb  
that tree!



## Some questions and some results

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**Are there women you expect to be promoted to professor during 2008-2009?**

19 women are eligible to apply for promotion to professor; 21 women to docent during 2009-2011

**What is the situation for women in their department (resources, career development, mentoring, grants)?**

**Which women have recently left the department?**

**Why did they leave, and what can we learn from this?**

**What kind of support do you as head of the department need to deal more effectively with these issues?**

**A more long-term funding plan would make active recruiting feasible. In some cases funding for recruiting a few good role models would make a big difference.**

## Other initiatives within the faculty

Each department is allocated money for gender-equality initiatives

- Seminar series which include gender equality
- Introduce measurable goals (e.g. 30% of all invited lecturers shall be women)
- Invite women role models to speak, to visit the department, to take part in existing scientific networks
- Christmas present for all staff a good book on gender in science!
- Scholarships for summer interns directed at female high-school students
- Support to a female newly appointed junior lecturer
- Course on Gender in Science and Technology



## Support for female guest professors

The science faculty cofinances women guest professors

The number of guest professors increased dramatically

The science faculty fully finances all women professors (both promoted or recruited)

This provides incentives for department heads, division heads to encourage women to seek promotion

Three women promoted to professor during 2008-2009... nearly 50% increase in number!



## Active recruitment of women scientists

First group recruited in 2001, 6 positions opened for mainly local candidates

All successful research/teaching/leaders today

Half are promoted to professor

Second group recruited 2009

- 5 associate professor positions financed at 80% by faculty for 6 years
- Search committee identifies candidates
- 5 women chosen after interviews
- Two local candidates recruited: medical physics, geology
- Three external candidates recruited: analytical chemistry, microbiology and pure mathematics

## Summary

- Initiatives to help women make more informed career decisions
- Incentives from the faculty leaders are necessary to set the agenda
- Improving the working environment
- Networks are important
- Heads of departments are key
- Doing scientific research because it is fun



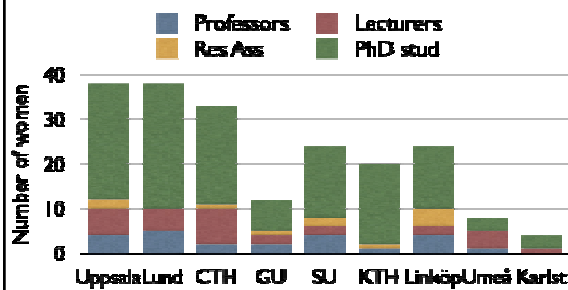
## Thank you JSPS

- For organizing a very interesting meeting
- Putting women in science on the agenda
- Bringing together social scientists, policymakers, faculty members
- In a fantastic place!



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## Women in physics: Sweden



WIPS network formed after IUPAP meeting in Paris, 2002  
 Section for women in physics in Swedish Physical Society, 2005

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## Nordic Network for Women in Physics

- Swedish, Danish and Finnish Physical Societies have sections for women in physics
- Similar cultures, similar educational systems, similar political climates
- Numbers are few, distances are large
- NORWIP: Annual meeting of all Nordic women in Physics
- Goal:
  - inspire graduate students
  - Career planning
  - Networking
  - Future positions
  - Share ideas, common projects

## Lund University, gender distribution

Goals for 2003-2005, actual % women

	Goal	Professor	Ass Professor	Adjunct	Assoc			
<i>Engineer</i>	20	11	35	24	--	35	40	10
<i>Sciences</i>	20	7	35	32	--	100	40	33
<i>Law</i>	0	50	25	--	0	--	0	
<i>Business</i>	25	30	40	33	50	60	50	67
<i>Medicine</i>	25	27	35	50	20	15*	40	54
<i>Arts</i>	25	22	30	20	35	29	--	0
<i>Human</i>	45	39	40	50	--	45	40	42
<b>All</b>		15		34				38