

Gender Equality in Science : Experience and Achievements of French CNRS



www.cnrs.fr

Universitatea Alexandru Ioan Cuza
Iasi, Romania – 24 October 2013

Anne Pépin

Scientific Director, *Mission pour la place des femmes* at CNRS
FP7 INTEGER Project Coordinator
FP7 GENDER-NET Project Coordinator



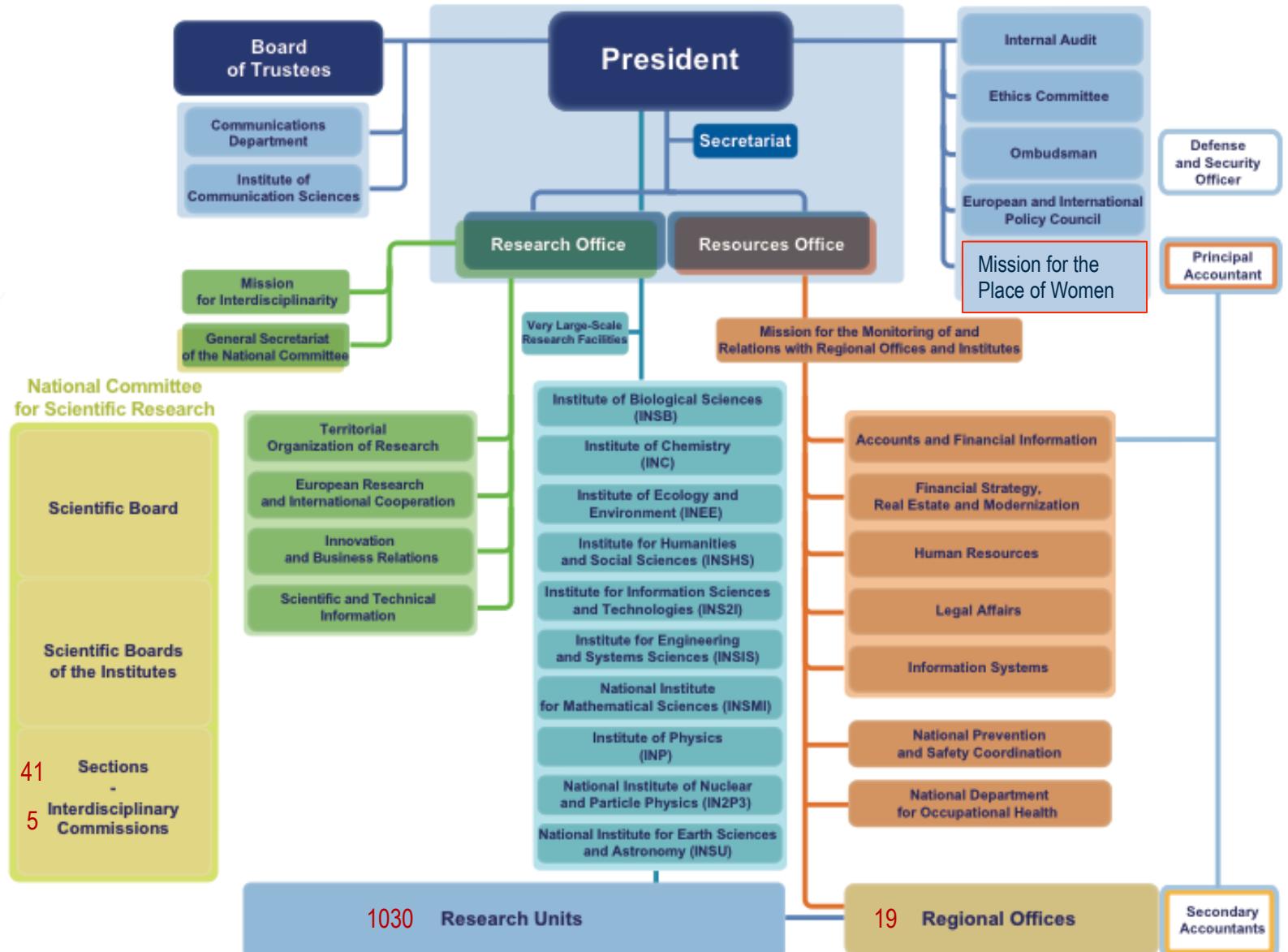
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| CNRS Key Figures

- French National Center for Scientific Research
- Founded in october 1939 by governmental decree
- Largest public basic research organisation in Europe
- Personnel: over 30,000 employees of which 25,300 are CNRS tenured employees (11,300 researchers + 14,000 engineers and support staff)
- All fields of knowledge covered through our 10 Institutes and 1030 laboratories
- Budget: 3.4 billion Euros for 2013 (i.e. $\frac{1}{4}$ of French public spending on civilian research)
- Organisation in Europe with highest number of participations in FP7 projects and number one host institution for ERC grantees
- 18 Nobel Prize laureates, 11 Fields Medal laureates, 1 Turing Award

CNRS: Organisational Chart

Researchers
evaluation
board



95% joint labs with universities or industry, including international

local administrative management of labs
+ 11 international Offices abroad

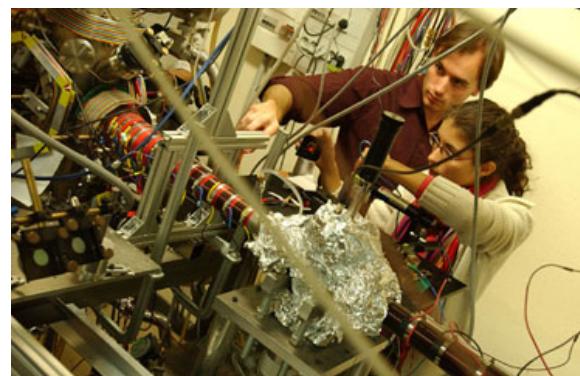
| Key figures on the status of women at CNRS

1 | Overall picture

CNRS employs around 35 000 people (in 2012)

i.e. Over 25 000 permanent staff (civil servants) including 11 000 researchers

42.6 % women among permanent staff (42,2% in 1999)



Women represent:

32,8 % of permanent researchers (30% in 1999)

50,4 % of permanent technicians / engineers (52% in 1999)

2 | But Disparities...



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... among scientific disciplines (**Researchers**)...

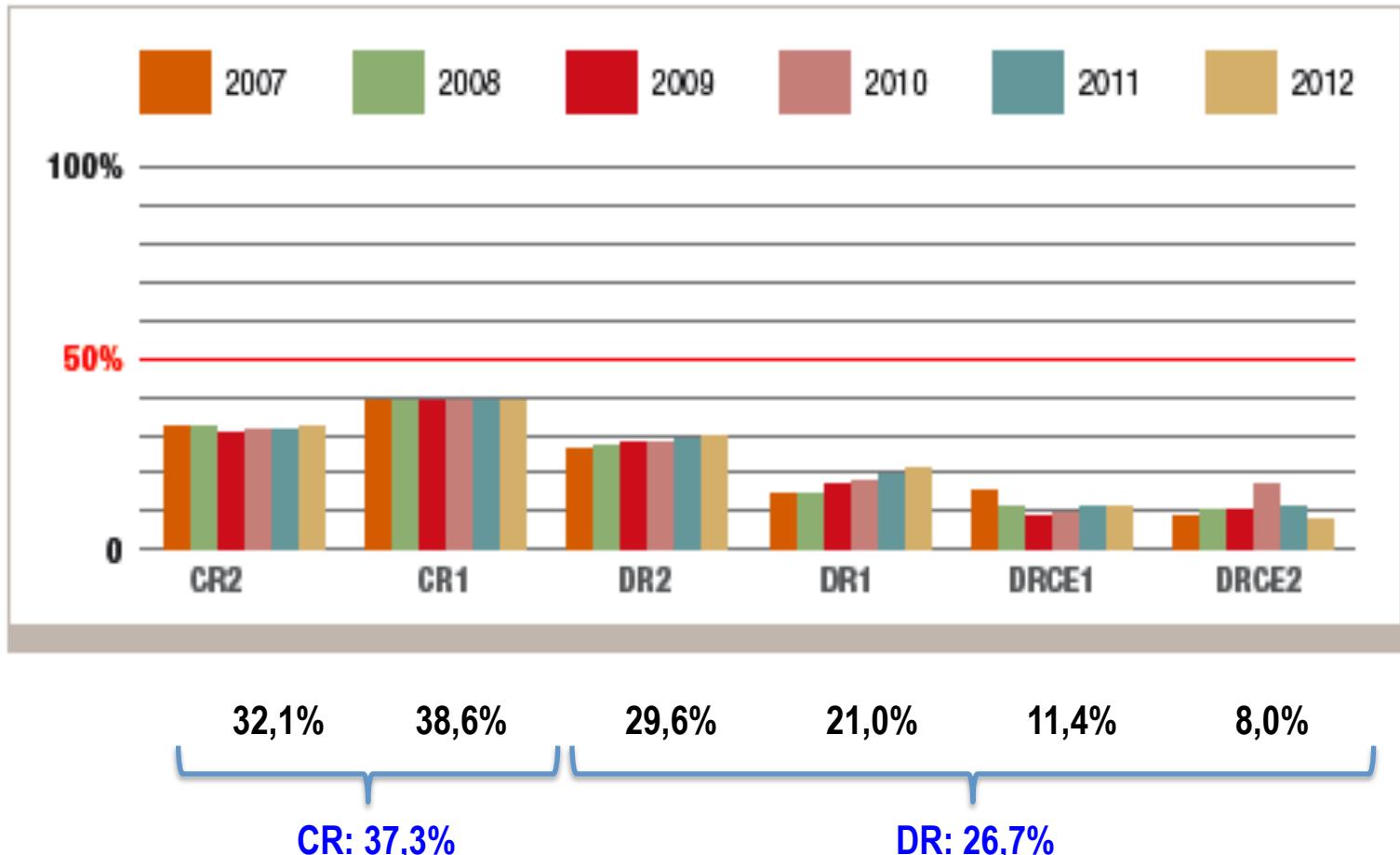
Maths	Engineering Science	Physics	Computer Science	Nuclear & Particle Physics	Planet & Earth Sciences	Chemistry	Ecology & Environment	Life Sciences	Humanities & Social Science
16,5%	20,9%	21,2%	23,1%	25,2%	28,6%	32,2%	34,9%	42,0%	45,0%

... and among professional sectors (**Technicians/Engineers**)

Engineering & Instrumentation	Logistics, Prevention	CS, Statistics, Calculus	Chemistry & Material science	Humanities & Social Science.	Life Sciences	Information, Communication	Management
11,0%	19,7%	19,7%	44,0%	54,1%	66,3%	73,7%	85,9%

(Dec. 31, 2012 Figures)

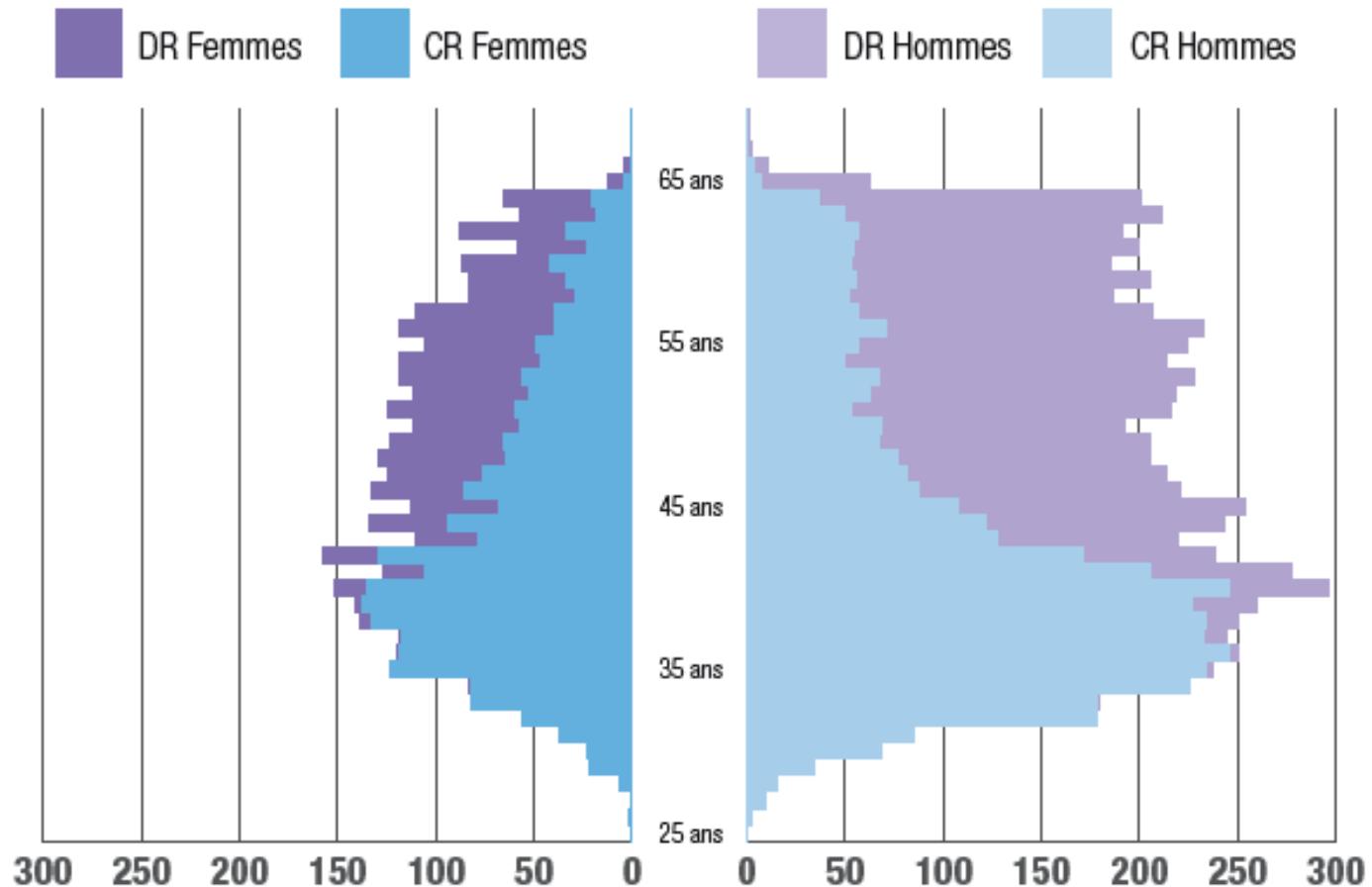
| Women researchers: glass ceiling and slow evolution



| Researchers: age pyramid



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In 2012 : **34,2%** of women researchers are DR while **45,9%** of male researchers are DR

Données au 31 décembre 2012

Source : « La parité dans les métiers du CNRS 2012 » à venir

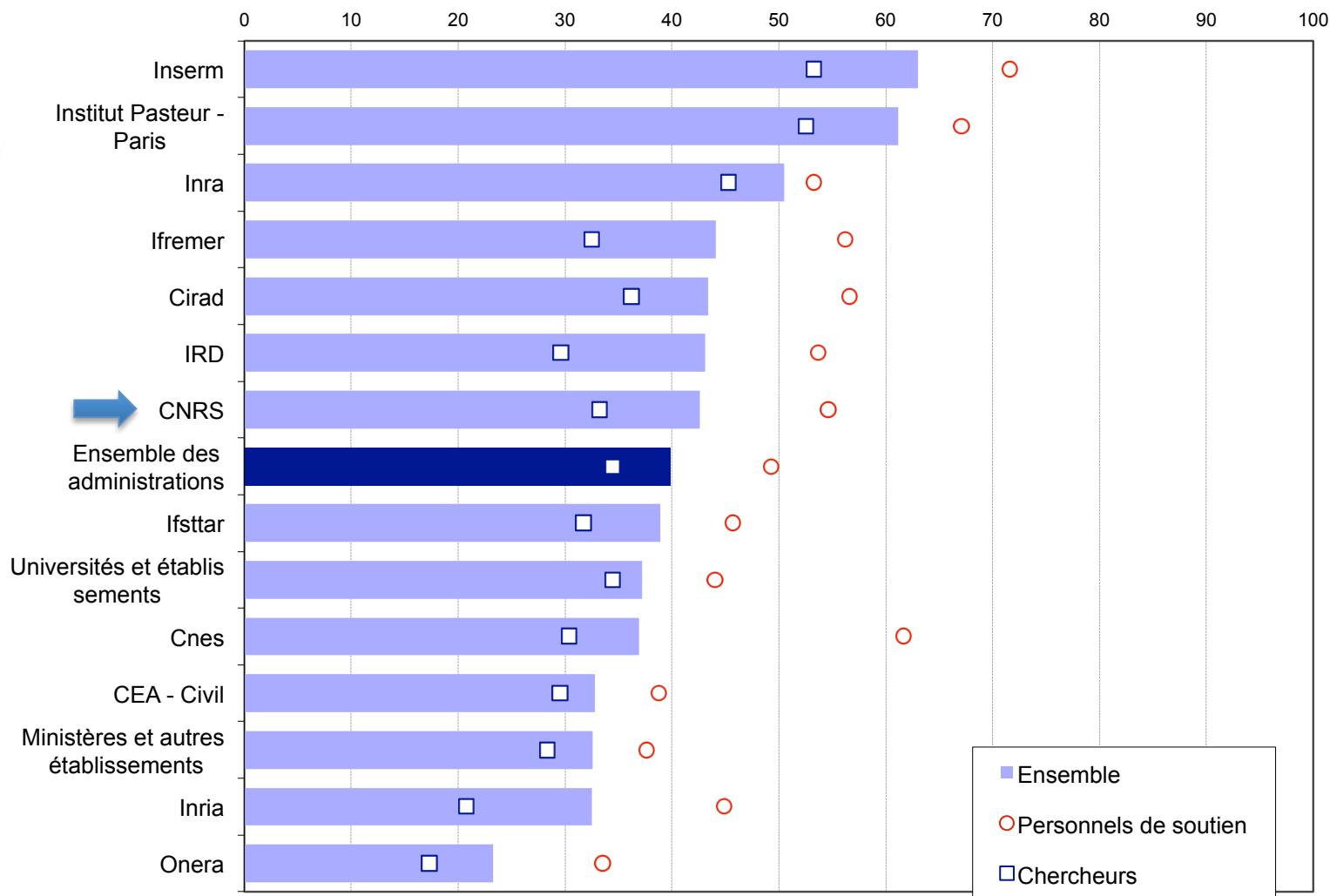
| Women in decision-making positions and committees



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Postions	2011	2012
• Président, DGD-R, DGD-S :	0 %	0 %
• Direction d'Instituts :	20 %	20 %
• Direction adjointe scientifique d'Instituts :	22 %	20 %
• Direction adjointe administrative d'Instituts :	90 %	70 %
• Délégué-e-s régionaux/régionales :	22 %	26 %
• Directeurs/trices d'unités :	18 %	19 %
dont DU CNRS :	32 %	24 %
Instances délibératives ou consultatives :		
• Conseil d'administration :	33 %	35 %
• Conseil scientifique du CNRS :	37 %	37 %
• Conseils scientifiques d'instituts :	37 %	37 %
• Sections du Comité national :	36 %	41 %

| French national context: % women in public research





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CNRS DG creates Steering Committee on «Disciplines, trades, careers and gender: the place of women at CNRS»



«Mission pour la place des femmes au CNRS» created in July 2001

CNRS becomes the first research organisation in France to create such an operational unit

2001

2013

- **Collecting & analysing quantitative & qualitative data**
(e.g. gender statistics in CNRS annual social report, career paths at CNRS, comparative US-Canada study)
- **Promoting gender(ed) research**
(e.g. Multidisciplinary gender workshops, On-line inventory of gender researchers in France, Gender Challenge Program (« Défi Genre ») with Mission for Interdisciplinarity
- **Outreach, Communication, Role Models**
(e.g. «Women in Physics» exhibition & DVD, Young female mathematicians annual workshop, «Les femmes dans l'Histoire du CNRS»)
- **National, European and international collaborations**
(e.g. support to French women scientists associations, EPWS, FP7 projects, US & Canada partnerships)

Gender Equality Action Plan

INTEGER Project (FP7-SiS)

GENDER-NET ERA-NET (FP7-SiS)

| La Mission pour la place des femmes au CNRS

- Created in July 2001 : CNRS a pioneer amongst French research and higher education organisations
- Directly under the CNRS President, at interface between scientific and administrative spheres
- Observatory in charge of fostering, supporting and evaluating the mainstreaming of gender equality issues in CNRS's global policy
- Work in coordination with CNRS governance, Institutes, HR Department and other central services, regional offices, the National Committee, the CNRS Mission for Interdisciplinarity, the laboratories, etc.

| Gender equality: a national priority in France

- **Law of 12 March 2012 (Sauvadet)** : 40% women target (for 2015) in recruitment and promotion juries, nomination to boards of trustees, and top positions in the French public service
- After the new Law of 6 August 2012, **circular on sexual harassment in higher education and research** (25 novembre 2012)
- **Ministry of Higher Education and Research (MESR) Gender Action Plan** published in December 2012
- **Charter for gender equality** co-signed by MESR, Ministry of Women's Rights and University and Engineering Schools associations (CPU, CDEFI, CGE) on 28 January 2013
- **Agreement Protocol for professional gender equality in the French public service** signed on 8 March 2013
- **Law relating to HER** on 22 July 2013
- **New Law project on gender equality** deposited 3 July 2013

| EU priority

ERA Communication adopted on July 17th 2012 clearly sets 5 key priorities for the ERA construction, among which the following: “**Gender equality and gender mainstreaming in research – to end the waste of talent which we cannot afford and to diversify views and approaches in research and foster excellence**”.

Member States are invited to:

- Create a legal and policy environment and provide incentives
- Engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change
- Ensure that at least 40% of the under-represented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes

And **research stakeholder organisations** are explicitly invited to:

- Implement institutional change relating to HR management, funding, decision-making and research programmes through gender equality plans which aim to: Conduct impact assessment / audits of procedures and practices to identify gender bias; Implement innovative strategies to correct any bias; Set targets and monitor progress via indicators

Horizon 2020 : reinforcement of gender equality and the integration of the gender dimension in research contents (Article 15 + gender cross-cutting and evaluated)

INstitutional Transformation for Effecting Gender Equality in Research (INTEGER)

FP7 2010 Science in Society Work Programme:

- Activity 5.2.1: Gender and research
- Area 5.2.1.1: Strengthening the role of women in scientific research and in scientific decision-making bodies
- SiS–2010–2.1.1-1 (Coordination and support action):
Implementing structural change in research organisations/universities

→ First campaign of a call directly inspired from the ADVANCE Program funded by the US National Science Foundation since 2001. Call renewed in 2011 (STAGES!), 2012, 2013 and will continue in Horizon 2020

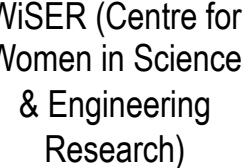
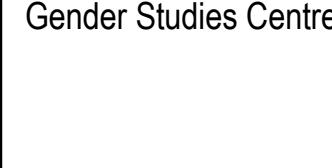
- INTEGER Starting Date: March 1st 2011
- INTEGER Duration: 52 months
- INTEGER Budget: 3,2 M€ (70% EC, 30% partner institutions)

| The INTEGER Consortium



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Gender Action Plan Implementation	 CNRS	 TRINITY COLLEGE DUBLIN	 SIAULIAI UNIVERSITY
Pilot Gender expertise	<ul style="list-style-type: none"> •INP (Institut Néel) •INSMI (IMJ) •Groupe de référence : INSIS (LAAS, Institut P') 	<ul style="list-style-type: none"> •School of Natural Sciences •School of Chemistry 	<ul style="list-style-type: none"> •Faculty of Mathematics and Informatics •Faculty of Technology
Coordination	 Mission pour la place des femmes au CNRS	 WiSER (Centre for Women in Science & Engineering Research)	 Gender Studies Centre
Evaluation		 Leibniz Institute for the Social Sciences	

+ ERA-NET
GENDER-NET
Launched 21-22
Octobre 2013 !



| INTEGER: Aims

- Create **sustainable structural change** to improve the career paths of women researchers in STEM through the **implementation of tailored gender action plans**
- Use and assess a variety of tools (USA: NSF-ADVANCE, UK: Athena SWAN) to support an effective and comprehensive organisational gender management strategy in each of the 3 implementing institutions
- Share our experience, tools and learning as the project develops, through guidelines, case studies, role models, publications, public speaking and other forms of dissemination

Our transformational gender action plans (T-GAP) will work across 4 key themes:

- Empowerment of decision makers
- Organisational structure
- Career progression, development and support
- Work-life balance

The project is also supported by:

- International Group of Expert Advisors and Ambassadors: Gender Experts and Academic Science Leaders with experience of the implementation of GAP and willing to share their expertise

Theme 1 – Engagement of Decision Makers

- Objective 1: Affirmation of political will
- Objective 2: Awareness raising and capacity-building trainings for decision-makers, evaluation committees and social partners on gender equality, unconscious bias and addressing sexual harassment

Theme 2 – Organisational structure

- Objective 3: Ensure constant dissemination of the state of play and studies made on gender equality
- Objective 4: Ensure gender balance in recruitment, evaluation and social dialogue committees
- Objective 5: Prevent maternity, parental, adoption leaves from hindering careers
- Objective 6: Improve gender balance in rewards and nominations, and reduce pay gaps
- Objective 7: Take measures regarding work organisation in order to improve working conditions

Networks and Exchange of Experience

Theme 3 – Career Progression, Development and Support

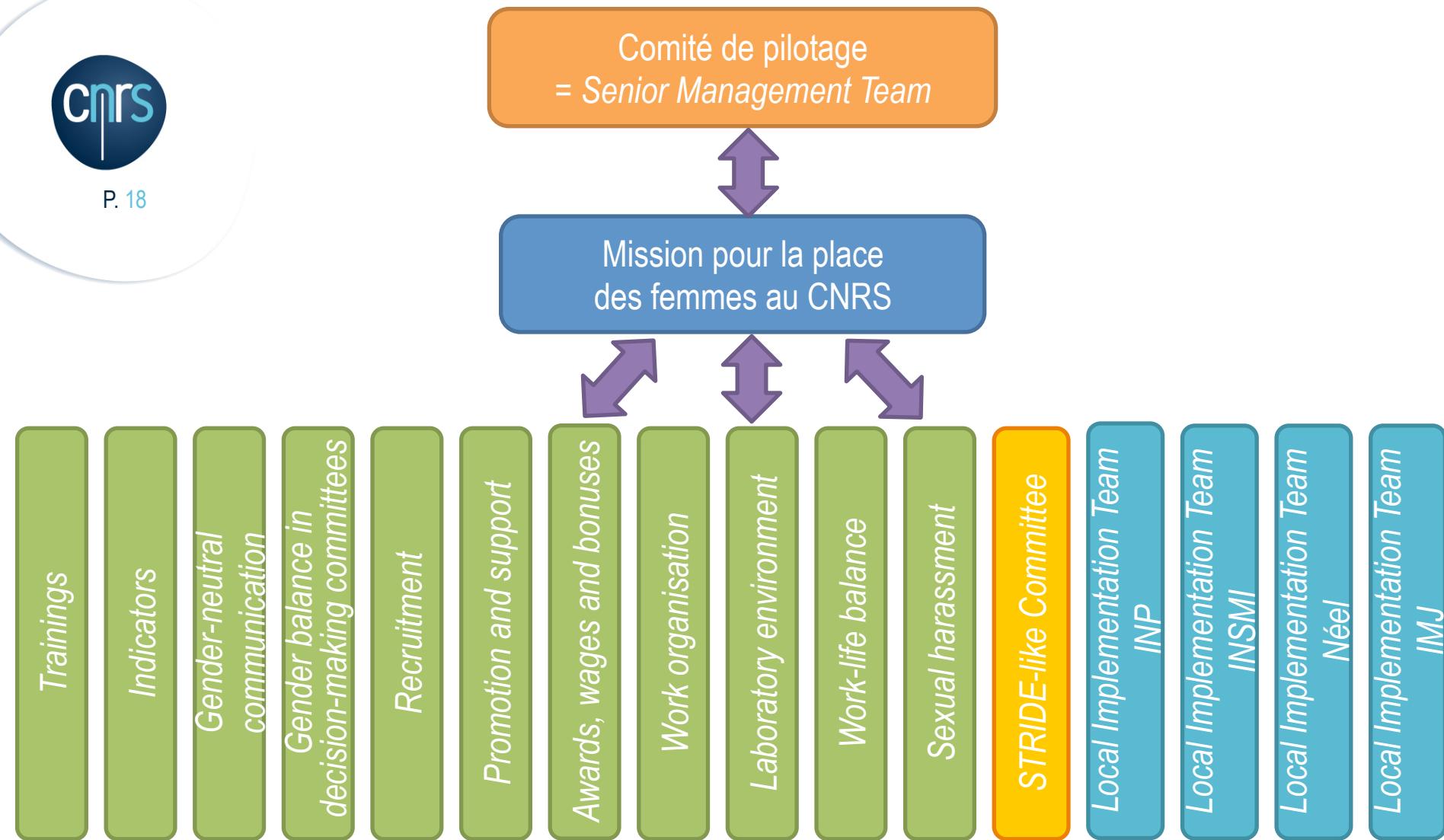
- Objective 8: Increase the percentage of women recruited at CNRS
- Objective 9: Develop incentives and support actions
- Objective 10: Raise profiles of women researchers
- Objective 11: Take action at promotion level in order to improve gender equality

Theme 4 – Work-Life Balance

- Objective 12: Address geographical mobility and dual careers
- Objective 13: Develop child and dependent-care support options
- Objective 14: Housing support
- Objective 15: Stop the long-hours culture

50 measures for structural change

Implementation methodology for the CNRS T-GAP



→ Creating Change Agents throughout CNRS

| CNRS-MPDF-INTEGER Key Initiatives



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- Parity Booklet and Indicators datasheets
- Trainings on gender equality and unconscious bias
- Engagement of Decision-Makers
 - e.g. Creation of a Senior Management Board for Gender Equality at CNRS / Implementation Teams / Working groups; CNRS Medals
- STRIDE-like Committee for researchers
- Work-Life Balance initiatives
- Professional development (e.g. Springboard program, Career interviews)

| Inform on the state of play on gender equality at CNRS

Since 5 years, annual publication of a sex-disaggregated statistics booklet, *La parité dans les métiers du CNRS*, as a complement to the *Bilan social*

Co-produced by the Mission pour la place des femmes au CNRS and the CNRS HR Department (OMES)

<http://bilansocial.dsi.cnrs.fr> (downloadable in Archives)

Graphic design : Goffredo associates



Graphic design :
Graines d'octets



| Inform on gender stereotypes and unconscious bias



Mission pour la place des femmes
au CNRS



Sciences et stéréotypes sociaux de genre

Catherine Thinus-Blanc*
Directrice de Recherche émérite au CNRS
UMR 6146: Laboratoire de Psychologie Cognitive
Equipe « Comportement & Contexte »

Pascal Huguet (DR), Isabelle Régner (MCF)
CNRS & Université d'Aix-Marseille I

**Experte pour la Mission pour la place des femmes au CNRS*

**Experte extérieure, Mission pour la Parité et la lutte contre les Discriminations, Ministère de l'Enseignement Supérieur et de la Recherche*

catherine.thinus-blanc@univ-amu.fr

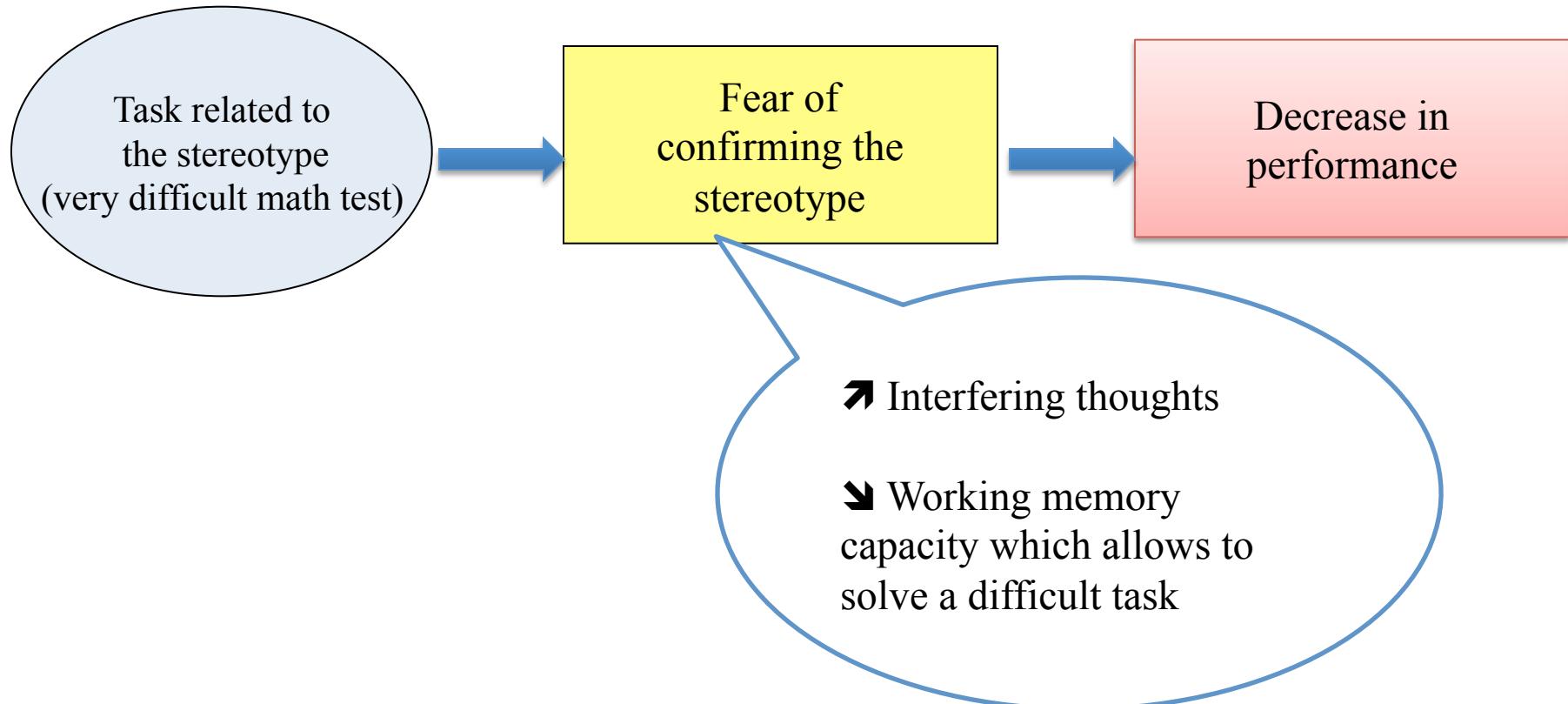
| Gender equality capacity-building trainings: unconscious bias and stereotype threat



Steele (1997). *Am. Psych.*
Steele & Aronson (1995). *JPSP*

Stereotype Threat (ST) translates into a decrease in performance of individuals when they are put into a situation in which they can be afraid of confirming – to their own eyes or to the eyes of others – a negative stereotype targeting a group they belong to.

Effect of stereotype threat



In the classroom...

HUGUET, P., & REGNER, I. CNRS, Marseille

454 pupils of 6th and 5th grade (223 girls and 231 boys).

Every class was divided into 2 mixed groups. The children were individually settled in separate tables.

Presentation of the «Rey figure»

1 ' 30 for the phase of encoding and 5 ' for the reminder.

To a group, we said that it was a **geometry test**, to the other group we said that it was a **drawing game**

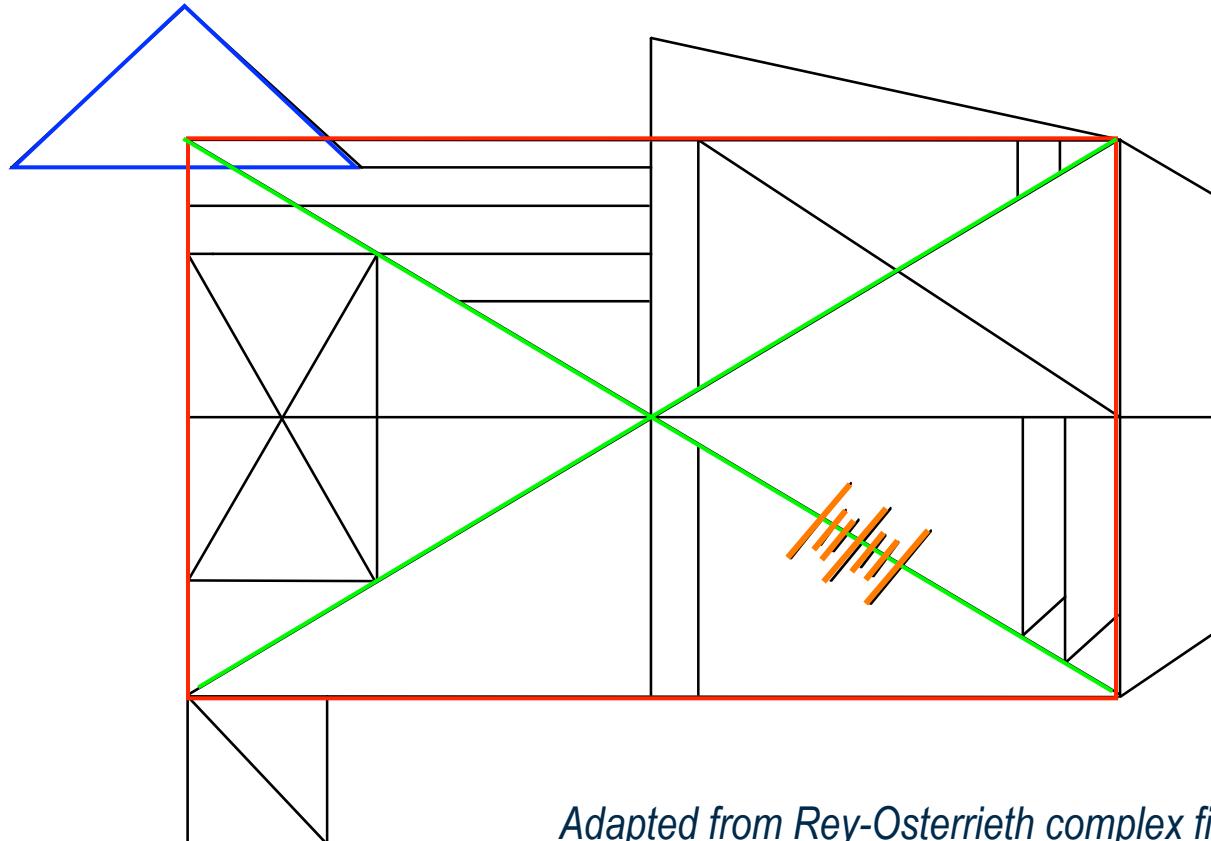


Children of 6th / 5th grade

Geometry Test

Or

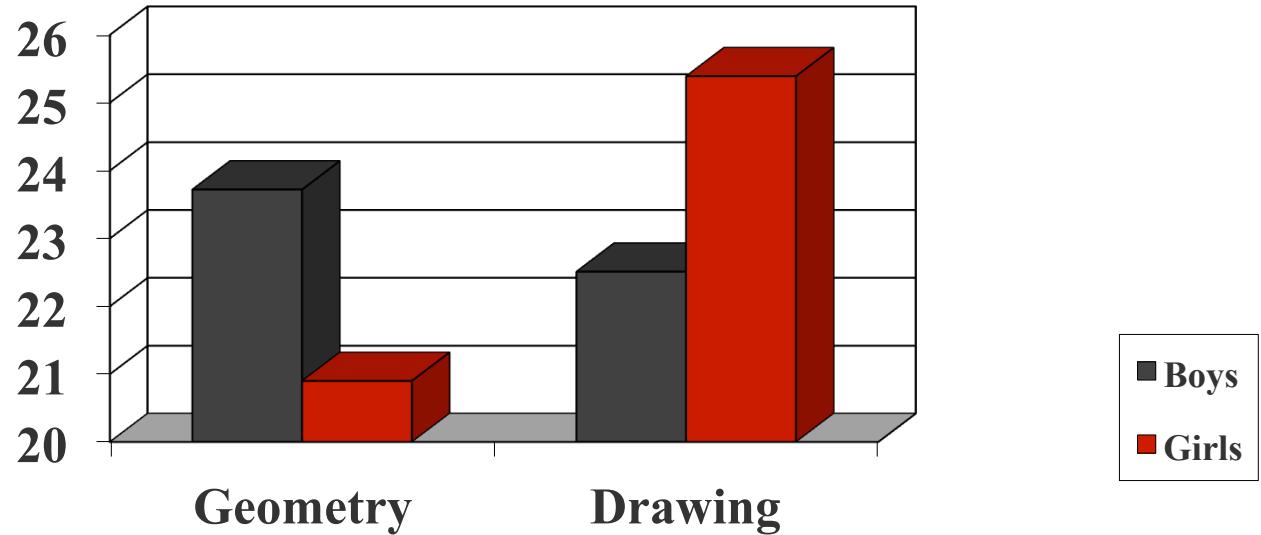
Drawing Game



Adapted from Rey-Osterrieth complex figure

Performance
(max = 44 pts)

Mixed Groups



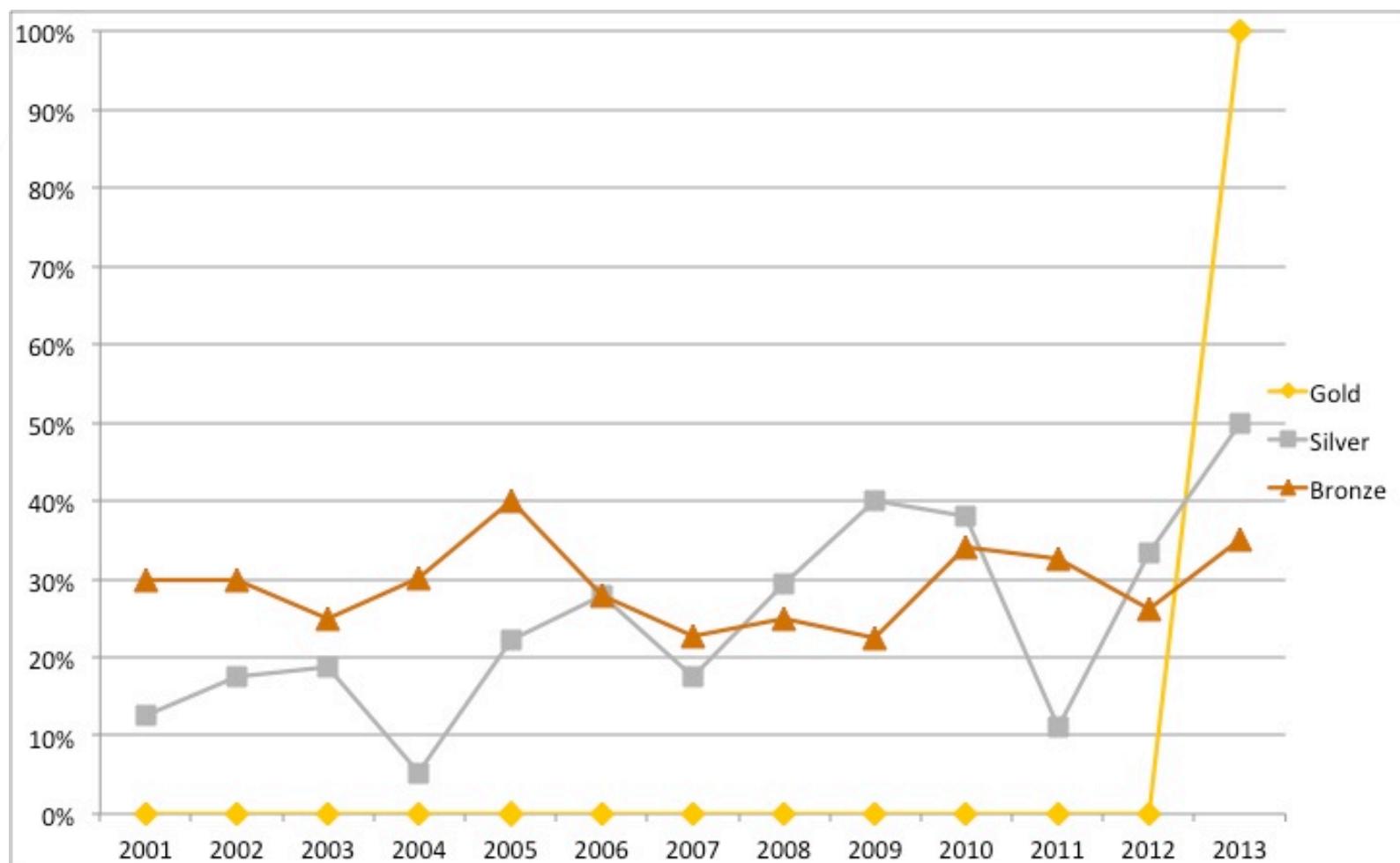
Context

HUGUET, P., & REGNER, I. (2007). *Journal of Educational Psychology*

Thus....

- Do not confuse **performance** with **competence**
- Cognitive performances depend on their social and cultural **contexts** of production ...
- The disaffection of the young women for STEM fields is related to **cultural stereotypes**
- These stereotypes can affect everybody, not only the candidates in a wide range of situations, but also recruitment and promotion jurys/ peer-reviewers/ decision-makers, in the way they judge the candidates, albeit in an involuntary and **unconscious** manner

| Engagement of decision-makers: CNRS Medals



| « STRIDE-like » Committee at CNRS
inspiration and mentoring from:



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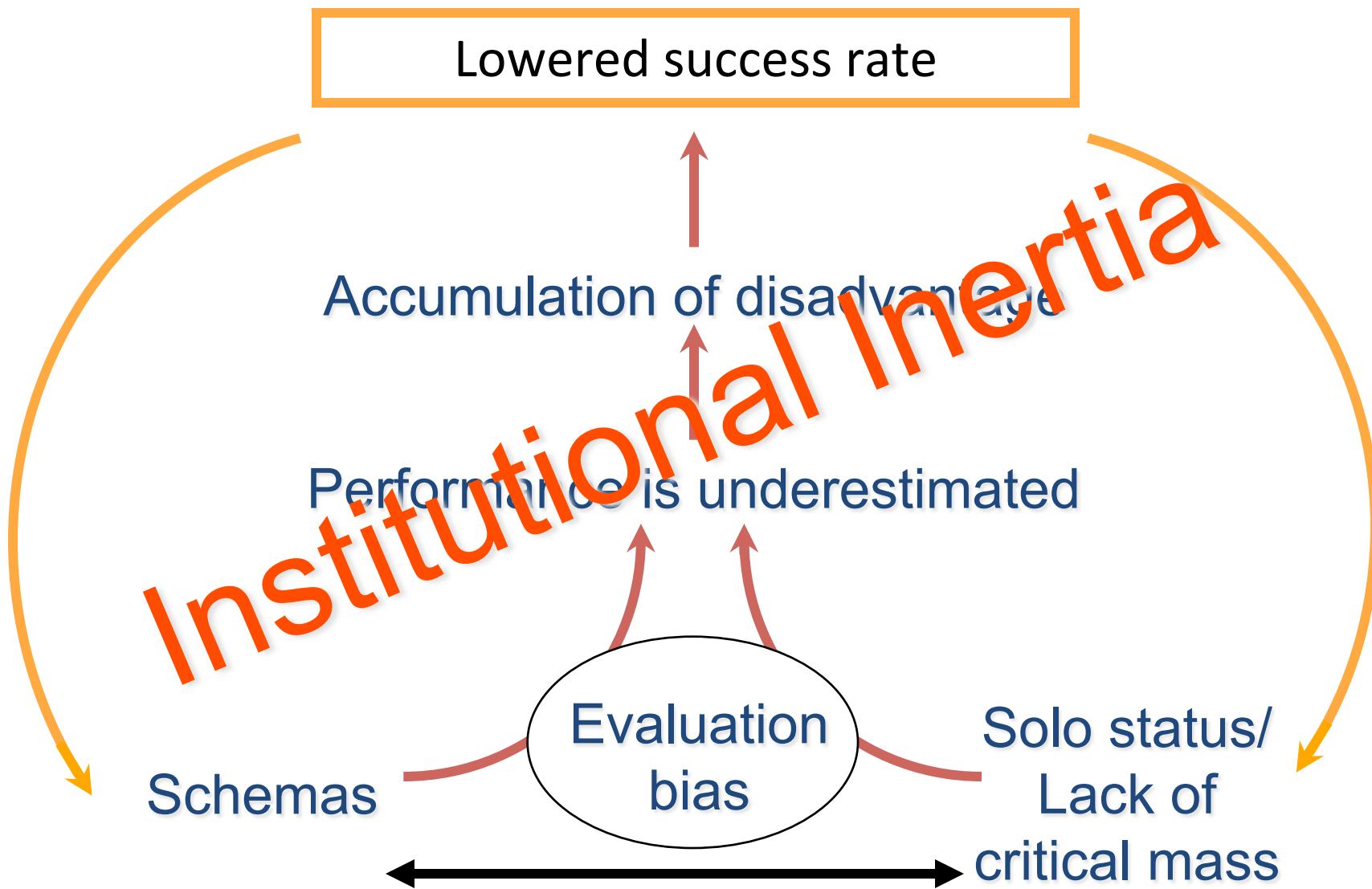


Workshop on Faculty Recruitment for Diversity and Excellence

**ADVANCE Program at the University of Michigan
Strategies and Tactics for Recruiting to Improve Diversity and Excellence**

*Courtesy of J. Wayne Jones, Arthur F. Thurnau Professor of Materials Science
Associate Director, ADVANCE Program, University of Michigan*

If We Do Not Actively Intervene, The Cycle Reproduces Itself



| STRIDE-like Committee at CNRS



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- Composition:
 - Presidents of sections of the National Committee
 - Secretariat General to the National Committee
 - Deputy Scientific Directors from all Institutes
 - Senior women researchers
 - HR representatives
 - Mission for the place of women at CNRS
- Two meetings since creation in 2013:
 - July 2013: Researcher recruitments
 - September 2013: Promotions and Awards
 - Interventions in individual sections to all members
- Next meeting December 2013 : with social science and cognitive psychology experts

| The GENDER-NET ERA-NET

FP7 2013 Science in Society Work Programme

Activity 5.2.1: Gender and research

Area 5.2.1.1: Strengthening the role of women in scientific research
and in scientific decision-making bodies

Call SiS–2013–2.1.1-2 (Coordination and Support Action):

ERA-NET on the promotion of gender equality in research institutions

Duration: 36 months (October 15th, 2013 - October 14th, 2016)

Total Budget: 1.951.665 €

Requested EC contribution: 1.545.219 €

I GENDER-NET Aims

1. Foster cooperation and coordination of initiatives carried out at national or regional level in Member States, associated countries, and some partner countries, thus reducing fragmentation across the ERA
2. Address the common challenges still present in research institutions in achieving gender equality in research and innovation, i.e. persistent barriers and constraints to the recruitment, advancement and mobility of women in the European scientific system, the lack of women in decision-making positions, and the limited integration of the gender dimension in research contents and programmes.
3. Help reach a critical mass of universities and research institutions across Europe engaged in specific initiatives promoting gender equality in research institutions and the gender dimension in research contents.
4. Support coherent monitoring and reporting of progress made with common indicators to assess achievements.

| GENDER-NET Key Figures

12 Partners:

3 Ministries & 1 State Secretariat

7 National research organisations, agencies, authorities, councils, foundations

1 National charity organisation

+ 3 Observers

3-year duration
Oct. 2013 – Oct. 2016

Grant n°618124

4 Work Packages :

WP1 → Management & Dissemination

WP2-3-4 → Coordination

16 Deliverables

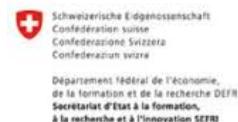
16 Milestones

233 Person Months

EC contribution
1 545 219 €



Higher Education Authority
An tÚdarás um Ard-Oideachas



REPUBLIC OF SLOVENIA
MINISTRY OF EDUCATION, SCIENCE AND SPORT



| GENDER-NET Strategy

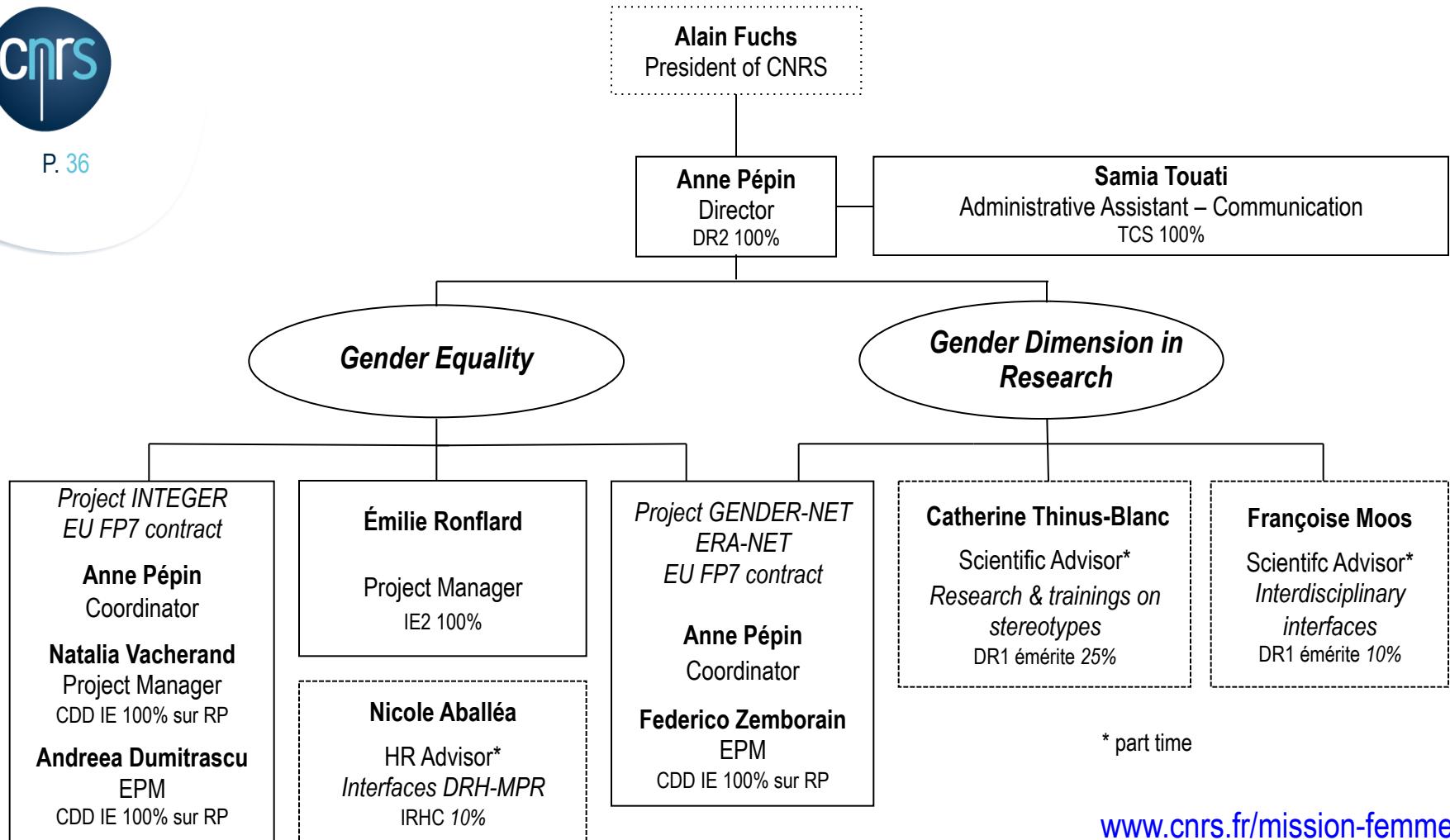
A pilot transnational research policy initiative

Partners are joining forces to:

- 1) Map & analyse existing national/regional programmes and initiatives aimed at:
 - a) promoting gender equality in research and higher education institutions through structural change
 - b) gendering research contents and programmes
- 2) Identify priority activities for strategic transnational implementation
- 3) Design and optimise transnational transferability
- 4) Implement these joint activities

On-going concerns of GENDER-NET:

- Expand outcomes by relying on the shared expertise and insight gained by partners
- Widening the consortium to reach a critical mass of institutions and stakeholders
- Disseminate results



www.cnrs.fr/mission-femmes

www.cnrs.fr/mission-femmes/integer

anne.pepin@cnrs-dir.fr