



# Gender, Science, Technology and Innovation in Argentina: between facts and the mirage of equality



Organización  
de las Naciones Unidas  
para la Educación,  
la Ciencia y la Cultura



Cátedra Regional  
UNESCO Mujer,  
Ciencia y Tecnología  
en América Latina



Facultad Latinoamericana  
de Ciencias Sociales,  
Sede Académica Argentina,  
Buenos Aires, Argentina

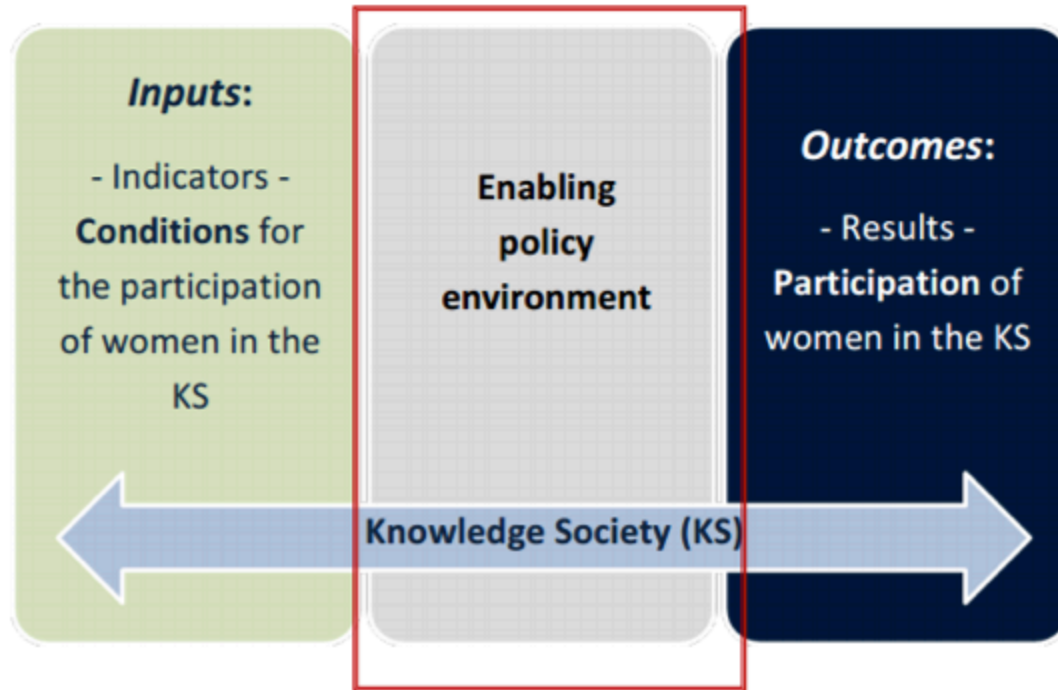
**Gloria Bonder**  
UNESCO Regional Chair Women, Science and Technology in Latin America

[www.catunescomujer.org](http://www.catunescomujer.org)

# National Assessment on Gender and STI

A collaborative initiative of Women in Global Science and Technology (**WISAT**), the Organization for Women in Science for the Developing World (**OWSD**), the **Elsevier Foundation**, and **GenderInSITE** (Gender in science, innovation, technology and engineering).

- What conditions are needed to facilitate women's full participation in the KS in this country?



- Is progress being made in this direction? How so? What are the results?

- What resources do women in each country need to achieve this objective?

Based on the Gender Equality – Knowledge Society (GE&KS) indicator framework

# ARGENTINA

## 2003-2013

Restoration of a **democratic political system** in **1983**.

Urban population **92%**

Mobile phone line **79%** (Census, 2010).

Internet users **75%** of population. **50%** women

Poverty rate decreased from **5.7% in 2011** to **4.3% in 2012** (ECLAC, 2013) No data for 2015.



HDI: **49** (World rank)

Population:

**42.98 million**


 **51%**

 **49%**

Since **1884 education** has been **universal, compulsory, and free of charge** from pre school (4 years old) to university.

Primary school enrollment **124%**

Literacy rates of youth (15-24) reached **99%**.

 Universities enrollment rate - women **57,5%**  
Among graduates, represented **61.5%**

Education budget:

**+ 6%** of the GDP(2003-2013)

**Universities**

**47** public (15 in 2003-2013);

**50** private



## Women in brief

**GDI** (Gender Related Development Index). Argentina ranks **46<sup>th</sup>** in the world (out of 155 countries) and third in LA (behind Chile and Uruguay).

**GEM** (Gender Empowerment/ possibility for women to engage in decision making), Argentina stands out at the regional and international levels, ranking **24<sup>th</sup>** out of 109 countries and being the 1<sup>st</sup> LA country.

- **1991. Quota law** for women political participation (**30%**).
- **1992. Creation of the governmental gender council.**
- **1994. CEDAW** acquired constitutional rank. Optional Protocol was ratified in 2007;
- **1996. Convention of Belém do Pará**

- Female participation in **public and private employment** (urban population) **40,4%**
- Women fill the majority of traditionally female positions in the fields of education, health, and service.
- Around **20%** work as **domestic workers.**
- Women fill **34.2% of management positions** (UNDP, 2011) and as little as 4% of large private companies are headed by women (ELA, 2010).
- The **pay gap** has been decreasing over the last decade from 34% less than men. In 2011, tto **25%** (at the expense of women),

- Since 1983, the proportion of **women in Congress** has increased from 4.3% to **38.1% in the Lower House** and from 6.5% to **36.1% in the Senate.**
- Of 16 **National Ministries, 4** are headed by women: Culture, Industry, Social Development, and Security. **A woman is the current President** and is carrying out her second term.

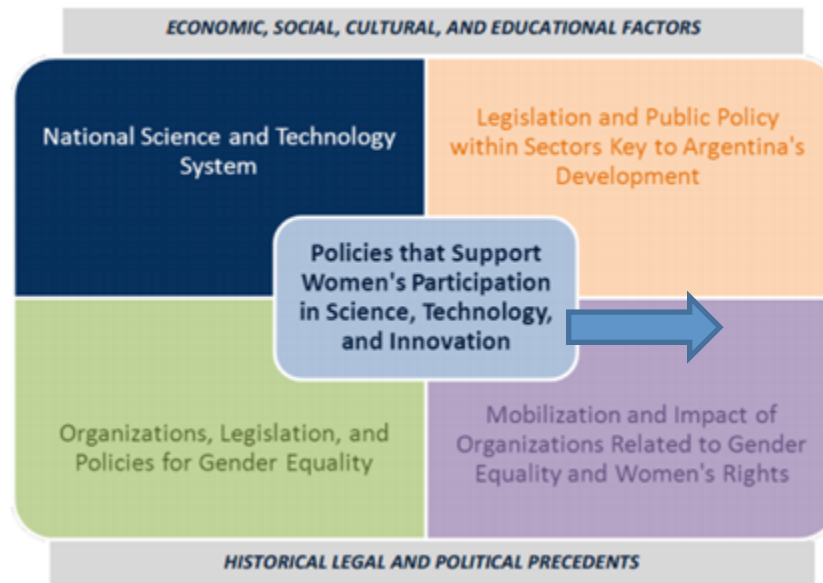
- **Maternal mortality** is not even across the provinces; the indices varied between 0 and **13.3** in 2007 (Ministry of Health).

# Enabling Policy Environment for the Integration of Women into the Science and Technology System

- Ministry of Science, Technology, and Productive Innovation (2007). **S&T budget (2002-2010) + 532%**
- CONICET budget: **260 million in 2003 to 2.9 billion pesos in 2013.** 50% **salary increase** for CONICET researchers.
- **+ fellows, researchers, and technicians**, as well as infrastructural expansion (2003: **488** scientist (-40 y.); 2012: **2156**)
- **TEC TV and TECNOPOLIS**

## SOCIAL POLICIES & PROGRAMS:

- **Universal Child Allowance (AUH), 2009.**
- **Law on Technical and Vocational Education.**
- **CONECTAR –IGUALDAD (One Laptop per Child)**
- **PROCREAR HOUSING PROGRAM**
- **PROGRESAR PROGRAM**



- **Raices (Roots) Program** (more than 1000 scientist return to Argentina)

## LAWS:

- **Gender based violence** (physical, psychological, sexual, economic and patrimonial, symbolic)

- **Gender Identity**

- **Egalitarian (LGTB) marriage**

- **Integral sexual education**

• **Gender studies units in most of the universities.**

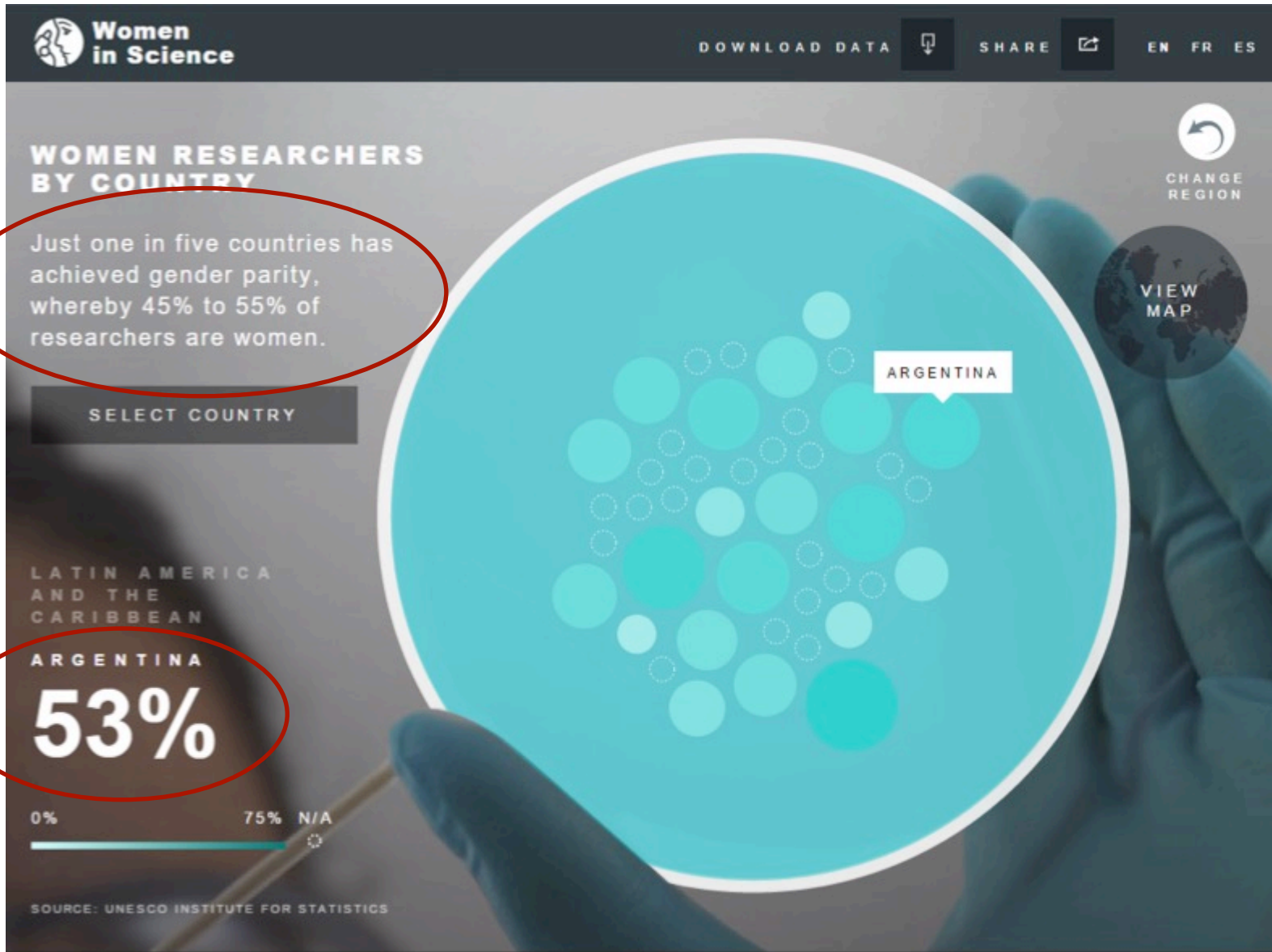
• **Women's NGO working against violence, trafficking and women's rights.**

# Women's participation in Science, Technology and Innovation

## Education

Argentina, 2001 and 2009: Female participation among undergraduate students by fields of education\*

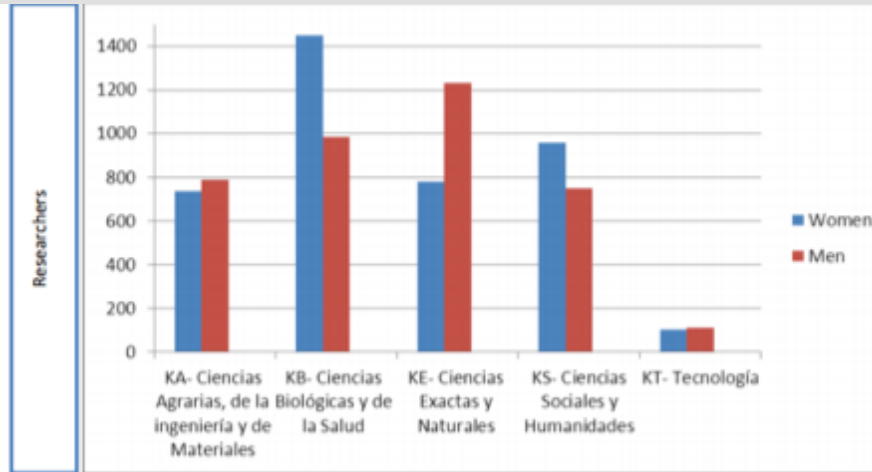
SCIENTIFIC AREAS*	Disciplines	2001		2009	
		Both sexes	% Women	Both sexes	% Women
Agriculture	Agriculture, forestry and fishery	25.570	25,2	36.233	26,7
	Veterinary	18.479	28,7	22.877	36,6
<b>Total</b>		<b>44.049</b>	<b>26,6</b>	<b>59.110</b>	<b>31,6</b>
Engineering, manufacturing and construction	Architecture and building	80.410	26,6	104.250	32,5
	Engineering, manufacturing and construction	78.652	15,2	93.287	17,1
<b>Total</b>		<b>159.062</b>	<b>20,9</b>	<b>197.537</b>	<b>24,8</b>
Humanities and Arts	Arts	39.043	59,5	48.609	56,9
	Humanities	55.901	57,3	64.959	58,0
<b>Total</b>		<b>94.944</b>	<b>58,4</b>	<b>113.568</b>	<b>57,5</b>
Science	Life Sciences	46.011	52,3	48.073	52,4
	Physical sciences	13.399	45,7	17.449	46,6
	Computing	88.634	26,0	81.031	19,0
	Mathematics and statistics	7.547	60,8	10.440	59,3
<b>Total</b>		<b>155.591</b>	<b>46,2</b>	<b>156.993</b>	<b>44,3</b>
Social sciences, business and law	Social and behavioural science	234.021	38,2	268.537	45,5
	Business and administration	114.995	38,4	132.992	44,8
	Law	201.273	43,5	202.991	47,5
	Journalism and information	54.997	41,9	54.149	49,1
<b>Total</b>		<b>605.286</b>	<b>40,5</b>	<b>658.669</b>	<b>46,7</b>
Education	Teacher training and education science	57.436	76,0	71.123	77,1
<b>Total</b>					
Health and welfare	Health	226.416	46,4	281.327	54,7
	Social Services	22.499	73,4	24.491	76,9
<b>Total</b>		<b>248.915</b>	<b>59,9</b>	<b>305.818</b>	<b>65,8</b>
Services	Environmental protection	4.425	51,3	7.027	51,4
	Security services	548	7,3	2.048	26,7
	Transport services	556	22,1	1.497	17,2
	Personal services	22.312	64,9	43.356	67,8
<b>Total</b>		<b>27.841</b>	<b>36,4</b>	<b>53.928</b>	<b>40,7</b>
<i>missing cases</i>		19.875		33.404	



# Women's participation in Science, Technology and Innovation

## Research – Public sector

### Researchers by Broad Knowledge Area and Gender (2013)



Source: Information from December 2013. Source: CONICET Database-Human Resource Management

- In 2010, the MINCYT registered 22,839 female researchers (51%) and 21,715 male (49%).

### Researchers by category CONICET

Categories		2000		2003		2006		2008		2013	
		Both sexes	% Women	Both sexes	% Women	Both sexes	% Women	Both sexes	% Women	Both sexes	% Women
Leader	Superior	175	13.1	192	17.2	200	17.5	207	19.3	158	27.2
	Principal	482	27.0	508	27.8	597	29.6	698	31.7	749	36.4
	Independent	988	38.0	1,096	40.1	1,233	43.0	1,441	45.3	1,786	47.3
Not a leader	Associate	1,307	48.7	1,494	52.1	1,638	51.8	1,953	51.6	2,435	53.6
	Assistant	713	51.1	466	53.2	1,091	57.0	1,337	58.0	2,774	56.3
Total		3,665	41.7	3,756	43.6	4,759	46.5	5,636	47.9	7,143	50.9

- Inequalities persist both within different disciplines and within the highest ranking categories.



# Women's participation in Science, Technology and Innovation

CONICET

CONICET BOARD POSITIONS BY GENDER - 2009 - 2013						TABLE # 1-1
Top Positions	2006		2009		2013	
	Women	Men	Women	Men	Women	Men
<b>TOTAL</b>	<b>1</b>	<b>8</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>6</b>
President		1	1			1
Vice-President of Scientific Affairs		1	1		1	
Vice-President of Technological Affairs		1		1		1
Directors	1	5	1	4	1	4

Source: [www.conicet.gov.ar](http://www.conicet.gov.ar)

## Decision-Making Positions

- In 2008, for the first time since Conicet creation, one woman became president of this institution.
- **2 women on the Board of Directors:** the Vice-President of Scientific Affairs and the Director of Social Sciences and Humanities.

MINCYT

Women account for **a third of all employees working in the management and coordination of the MINCYT**. The Department of Planning and Policy, both Scientific Advisory Committees, the Committee of Ethics, the National Directorate of International Relations, and the Secretariat of Administrative Coordination are all run by women.

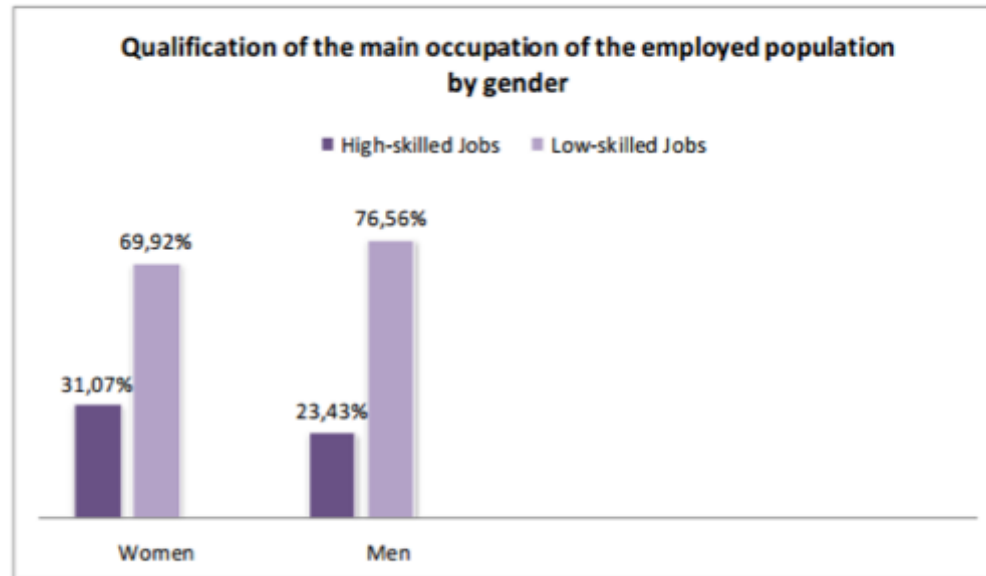
ACADEMY

**One National Academy of Science** (that of Economic Sciences) is headed by a woman.

**53 national universities:** 8 female rectors; vice-rectors: of 47, only 9 are women.

**37.7% of university deans** are women (88 of 233 available positions). The representation of each sex in the total national university faculty body is practically equal.

**Senior positions:** only 37.4% of **full professors** are women while this situation is reversed for junior positions.



Men comprise the majority of the personnel in the Information and Communication sector **72.76% men vs. 27.23% women**.

Men fill **53%** and women **47%** of positions of “Professional” rank, while in the “Technical” rank (50% and 50%).

# Women's participation in Science, Technology and Innovation

## Policies 2003-2013

- **Maternity Leave** (including monoparental families, adoption and people with different sexual orientations) : 100 days of leave for both entry-level researchers and those promoted to higher positions. This regulation also provides mothers with the possibility of deferring the productivity report without penalties..
- **Age limits for entering research council:** extension of application age limits for researchers who have had children.
- **Other Regulations:** medical coverage associated with fellowships; day care facilities in some science centers (they have not yet been established across the Council's entire network).

Do women scientists and technologists represent themselves as workers?

## Mirage of the equality



## Privileges vs. Rights

### Organization and coordination of regional events



#### Experts Workshop: Innovation of scientific and a technological education with a gender perspective

April 16th and 17th, Buenos Aires  
 Held by the UNESCO Regional Chair on Women, Science and Technology in Latin America, supported by UNESCO.

Twenty specialists from academic institutions and international organizations from diverse Latin American countries gathered in Buenos Aires to:

- Debate the current situation of S&T education in Latin America and the innovation processes that need to be put in place.
- Make recommendations to optimize the quality and relevance of a gender sensitive S&T education, by integrating the contributions of gender studies in these areas.

This Workshop is part of a program supported by UNESCO Paris, the UNESCO Regional Office for Science in Latin America and the Caribbean, and counted with the auspices of OEI (Organization of Iberoamerican States, Google and CIM- OEA (Interamerican Commission on Women - Organization of American States), and GenderInSITE - Focal Point Latin America and Caribbean.



### Policy advocacy

Contribution with OAS in the elaboration of the Action Plan, approved in the Fourth meeting of Ministers and High Authorities on Science and Technology. (March 10th and 11th, 2015, Guatemala City)



Approved paragraph

#### Women's participation and leadership

- 1) We will step up efforts to mainstream the gender perspective in the four pillars of the Plan of Action of Guatemala;
- 2) We will promote the presence of women in leadership and decision-making positions in the areas of science, technology, and innovation, as well as equal working conditions;
- 3) We will strengthen policies to encourage women to join and remain in scientific, technological, and engineering professions;
- 4) We will promote measures to enable women to participate equally in the development of the knowledge society and to have equal access to its benefits.

**ACTION PLAN LINK**

### Awareness Campaigns



Awareness campaign launched on March 8th, 2014. Sent to over 70,000 addresses and published in several media.

"What would I do without ICT?"

Women are increasingly using Information and Communication Technology (ICT). We also CAN and WANT to create them in terms to achieve better quality on people and communities' lives.

Equality of opportunities to access and decide the future of ICT is a benefit for the whole society.