**DIVERSITY (GENDER AND OTHERS) SITUATION:** 

# WHAT?

WHEN?

WHY?

ACTIONS?

IN OUR ENVIRONMENT?

### GENDER

- ¿Exists?: yes mainly for STEM careers
- ¿When?: already at the level of primary school, but much more differences at the highest positions (University, Research, Private firms,...)
- ¿Which is the motivation?: Familiar traditions, primary school teaching?,... but also very important the familiar conciliation,....
- ¿What to do?: A good education from the start, promote STEM for all childs, not priorizing for men and not for women. Campaigns of sensibilization to the society. Programs favorizing the familiar conciliation, Equality programas at the University, Research centers,... A politic of equality directed to private environment,...

- ¿What about in our context?: Communicators, scientists, educators,....
- We can provide specific programmes oriented to primary school, but also to general public

Diversity problema in other contexts?. Could increase also the problema of gender due to cultural traditions,...- $\rightarrow$  see ASPIRES Project from UK

## **ASPIRES Project from UK**

(study was kindly funded by the Economic and Social Research Council (ESRC))

There is a drop in numbers expressing science aspirations around the end of primary and the reason is not so much that school classes are boring, rather :

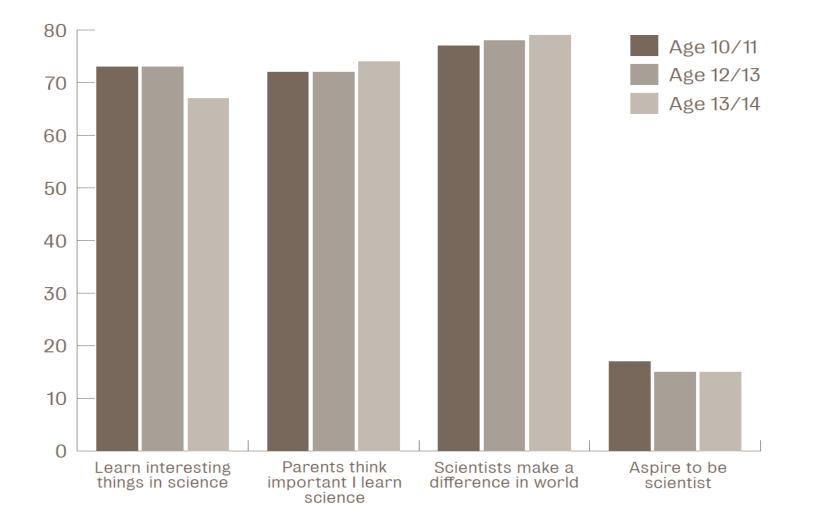
Lack of science capital at home/family, so children are not able to envisage where science could take them (mainly middle-class have more science capital)
School careers info is generally too little, too late
stereotypes become anchored of science careers being for Asian male middle-class (worse for white, the worst for black people due to multiple inequalities)

Science capital refers to science-related qualifications, understanding, knowledge (about science and 'how it works'), interest and social contacts (e.g. knowing someone who works in a science-related job).

# Implications:

- 1. Shift the policy discourse from 'increasing interest' to 'building science capital'
- 2. Earlier intervention from primary school
- 3. Break the 'science = scientist' link
- 4. Embed STEM careers awareness in science lessons
- 5. Tackle multiple inequalities
- 6. Bust the 'brainy' image of science/science careers
- 7. Broaden post-16 science options
- 8. Build science capital with students and families

### COMPARISON OF SURVEY RESPONSES FROM YEAR 6, YEAR 8 AND YEAR 9 STUDENTS (% STRONGLY/AGREEING)



Several activities made in Santander with occassion of 11 February, International Day of the women and girls (IFCA had a big protagonism, but all the research Institutes were participating in different events. The activities lasted about two weeks)



\_-Visibility of our own women scientists, with video showing their research, in order to push the youngest ones to do HEP research

- First competition of comics for primary and secondary school, dedicated to scientific women





Women IFCA: <u>https://www.youtube.com/watch?v=80k0xSqDrjw</u> Women IFCA - Athena: <u>https://www.youtube.com/watch?v=ibwoR2ZfMzk&t=2s</u> \_WomenIFCA - CMS: <u>https://www.youtube.com/watch?v=Pkp-QBEglzg</u> ¿Qué son las ESTRELLAS DE NEUTRONES? with Javier Santaolalla: <u>https://www.youtube.com/watch?v=9Zp844pufc0</u>

Pecha Kucha vol. 5 - Dedicated to women and girls in science :20 slides in 20 seconds, with the collaboration of many women scientists of IFCA





Interesting and funny plays to do in group, made by one of our women scientists. She has dedicated the play to scientific women in the history



"Discover your female scientists" at the Science Faculty. Talks for the general public



Round-table in the Ateneo of Santander with female scientists of different áreas collecting their experiences: Rocío Vilar, Ana Andrés, Ingrid Mateo, Diana Tordesillas y Carmen Sarabia. The public came from different environments of society and the discussion concentrate on different work, social and academic aspects of the scientists.

All of them are collaborating in the STEM Talent Girl Project





The Spanish "11 de Febrero" initiative was born on September 2016 to commemorate the "International Day of Women and Girls in Science".

The initiative has become a benchmark in the dissemination of Women in Science issues, with over a thousand activities that took place in Spain during February 2018. Hundreds of talks at schools given by female scientists or about the discoveries of female scientists were dedicated to encourage girls to follow a scientific career and prevent a gender-biased next generation of scientists.

Exhibitions, science dating, gatherings to edit Wikipedia, round tables, storytellers, comic or video contests, and many other activities contributed to make visible the contribution of women in science.

It is noteworthy that "11 de Febrero" is an open civic initiative launched and run by a few scientists and science communicators on a voluntary basis and without funding.

The initiative calls people, institutions, companies, schools, libraries, etc. to organize activities close to the 11th of February, announcing them on a web page (11defebrero.org) and on its social networks. The webpage offers as well a wealth of materials freely available to use in their activities.

The Spanish scientific community and the institutions have understood that each of us can make a difference and they are responding massively to the call, participating and organizing activities around the International Day of Women and Girls in Science.

The awareness that all this activity is generating will surely last much longer.

The award is directed to all the centers and unities of CSIC, and is doted with a máximum of 3000 euros

It pretends to promote the gender perspective as a transversal category in the CSIC and to advance in the process to eliminate the barriers of women in their profesional exercice. Also promote the adoption of innovative activities contributing to eliminate and to prevent discrimination, due to maternity, nursing, adoption,.... Among other recommendations, to promote language non-sexist and empowering the presence of women in the highest positions of management, and tutorize programmes directed to girls and young female researchers

CSIC started in 2002 a Committe of Women and Science to asess the President and to do a study, optimization and following the scientific careers of women in the Organism being pioneer in the general administration of Sapin. CSIC has also an Equality Committee, by delegation of the Presidence to made a diagnosis of the gendre equality and promote activities

### The women at CSIC

11.000 workers at CSIC, in 2016, about 50% women, 5.455. Women are 35,7% of permanent personnel of the institution, 33% of them being IP of competitive

Dear all,

I have been asked to convene the Diversity in science communication panel at the next IPPOG meeting in Pisa, in which you have shown interest to participate

During the meeting there will be 75 minutes dedicated to finalize our discussions and prepare a 20 minutes report.

I send to all of you this message in order to work towards the agenda and topics of discussion.

I have a first proposal which is really open to any suggestions from you:

- we could consider prioritarily the gender diversity , but we could also treat other diversity problems

- we should consider diversity in the science, in general, not only science communication

- we could stablish the problem, from the early age of learning (primary school) and identify if/why there are differences which can determine the gender diversity problems at the research/teaching/management/communication stages of the life

- the real experiences of each country / field of research/communication,... should be worth to be exposed in the panel
- we could show the activities made in your environement to expose the problem to society
- also which are the plans/programmes to promote the equality

- finally propose activities/programmes in our own context as responsibles for outreach and communication of science to the general public, including politicians and university managers,...

Te mando lo que te comentaba de nuestra página: https://ifca.unican.es/es-es/news/Paginas/Resumen-de-las-iniciativas-por-el-11-de-febrero.aspx También puedes encontrar lo que se hizo a nivel nacional aquí: https://11defebrero.org/ Y lo que te he dicho del CSIC: http://www.csic.es/home?p p id=contentviewerservice WAR alfresco packportlet&p p lifecycle=1&p p state=maximized&p p mode=view&p p col id=column-1-1&p p col count=1& contentviewerservice WAR alfresco packportlet struts action=%2Fcontentviewer%2Fview& contentviewerservice WAR alfresco packportlet nodeRef= workspace%3A%2F%2FSpacesStore%2F7865fa7d-1c5b-407d-aa57-e24efb9d39b1 además de la campaña que hicieron: http://www.csic.es/buscar?p p state=maximized&p p lifecycle=1& contentviewerservice WAR alfresco packportlet struts action=%2Fcontentviewer%2Fview&p p id= contentviewerservice WAR alfresco packportlet& contentviewerservice WAR alfresco packportlet struts action=%2Fcontentviewer%2Fview&p p id= contentviewerservice WAR alfresco packportlet& contentviewerservice WAR alfresco packportlet struts action=%2Fcontentviewer%2Fview&p p id= contentviewerservice WAR alfresco packportlet& contentviewerservice WAR alfresco packportlet struts action=%2Fcontentviewer%2Fview&p p id= contentviewerservice WAR alfresco packportlet& contentviewerservice WAR alfresco packportlet struts action=%2Fcontentviewer%2Fview&p p id= contentviewerservice WAR alfresco packportlet& contentviewerservice WAR alfresco packportlet nodeRef=workspace%3A%2F%2FSpacesStore%2Fbadaa424-26ac-440b-9c16-b75c0ad9d67e&p p mode view&contentType=news

Dear Alberto,

This looks like it will be a very interesting discussion and I look forward to it. Science needs support across the board from the very diverse population that funds us and also to attract the brightest minds wherever they may be. So I certainly second your suggestion for integrating several aspects of diversity into our discussion, not just gender.

There is a drop in numbers expressing science aspirations around the end of primary and the reason is not so much that school classes are boring, rather :

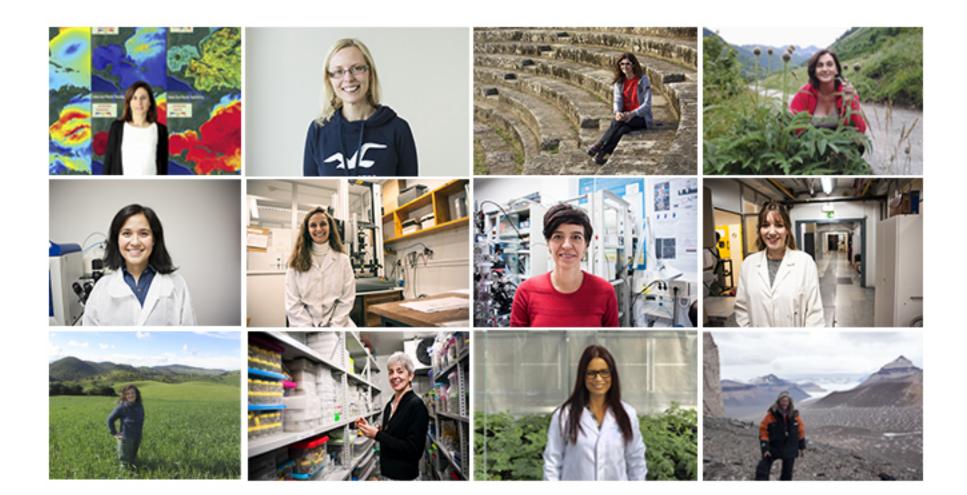
- •Lack of science capital at home/family, so children are not able to envisage where science could take them
- •School careers info is generally too little, too late
- •stereotypes become anchored of science careers being for white male middle-class

see eg: Aspires research project <a href="https://www.kcl.ac.uk/sspp/departments/education/research/ASPIRES/ASPIRES-final-report-December-2013.pdf">https://www.kcl.ac.uk/sspp/departments/education/research/ASPIRES/ASPIRES-final-report-December-2013.pdf</a>

I therefore wonder if IPPOG might want to consider developing a programme specifically for end primary, taking into account the role models you project, as this is such a pivotal point for stereotypes to set in.

A couple of years ago, CERN set up a task force within its International Relations sector to increase the diversity in CERN's public face. This has given rise to a range of activities, from an internal database sharing recommendations of women HEP speakers (we have 112 on our list), diversity tagging of photos within CERN's huge photo database, to make it easier to find new images to illustrate our activities, outreach activities in the local community sending female physicists into schools for 11th Feb, the start of a refocus on primary ages, support for other international days like the new LGBTstemday, including more subtitles in videos, integrating accessibility into plans for CERN's new website, introducing sign language content and subtitles in Microcosm, .... Such a programme does not have to be complicated, expensive or resource heavy to carry out. We've found small steps combined to create momentum helped us start to naturally integrate diversity into what we produce across the board.

One more link I wanted to share is from the Women in Technology group here, incase you've not already seen it : an interview with Sijbrand de Jong <u>https://cds.cern.ch/record/2293850</u> which touches on what he has done for diversity in academia.



EllasSonCSIC visibiliza el papel de la mujer en la ciencia 15/01/2018 Fecha 15/01/2018 Medio Departamento de Comunicación

Visibilizar el papel que desempeñan las mujeres en la ciencia. Éste es el objetivo con el que nace la iniciativa #EllasSonCSIC que lanza este lunes el Consejo Superior de Investigaciones Científicas (CSIC) y que se enmarca en el Día Internacional de las Mujeres y las Niñas en la Ciencia, del próximo 11 de febrero. Durante aproximadamente un mes, se difundirán a través de las redes sociales del CSIC imágenes de mujeres que trabajan en la institución y que desempeñan diferentes tareas tanto desde el laboratorio como desde la biblioteca o la administración, contribuyendo a que la ciencia llegue a la sociedad. #EllasSonCSIC busca visibilizar a las mujeres de todos los ámbitos que contribuyen a la ciencia.

A la iniciativa se han sumado investigadoras, ayudantes de laboratorio, personal de administración, bibliotecarias, personal sanitario... de los más de 120 institutos con los que cuenta el CSIC, tanto de las ocho áreas de investigación como de los servicios centrales.

#### La mujer en el CSIC

De los 11.000 trabajadores con los que cuenta el CSIC, según su Memoria 2016, aproximadamente el 50% son mujeres, concretamente 5.455. Las mujeres representan el 35,7% del personal funcionario de la institución, de las cuales, el 33% son investigadores principales de los proyectos obtenidos por el CSIC en las convocatorias del Plan Nacional y del 29,58% de los Proyectos Europeos. Además, recientemente, el Informe de Mujeres Investigadoras 2017, elaborado por la Comisión Mujeres y Ciencia, asesora de la Presidencia del CSIC, destacaba que el índice del techo de cristal para las

investigadoras del organismo es de 1,44, inferior a la media europea, que se sitúa en 1,8.

#### Día Internacional de las Mujeres y las Niñas en la Ciencia

El próximo 11 de febrero se celebrará el Día Internacional de las Mujeres y las Niñas en la Ciencia. En diciembre de 2015, la Asamblea General de las Naciones Unidas decidió proclamar esta fecha en reconocimiento al papel clave que el género femenino desempeña en la comunidad científica y la tecnología. Con este día internacional, se persigue, además, el objetivo de que se apoye a las mujeres científicas; se promueva el acceso de las mujeres y la niñas a la educación, la capacitación y la investigación de la ciencia, la tecnología, la ingeniería y las matemáticas, y favorecer su participación en esas actividades.



#EllasSonCSIC