

Unconscious bias in hiring and promotion processes

16th December 2022



Topics of the day

1. CFM: a diverse workforce?
2. The importance of understanding unconscious bias
3. Gender-aware hiring processes



01

CFM: A DIVERSE WORKFORCE?



CFM A DIVERSE WORKFORCE?

Look around you...

What do you see?





How do you imagine a physicist?






Do you feel anyone is missing today?

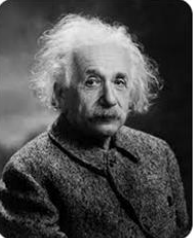



CFM a diverse workforce?


When we searched in Google, for physicist


Q Guztia  Maps  Erosketak  Tresnak  Bilaketa segurua ▼


 hawking  theoretical physics  of physics scientists  medical physicist  relativity





 Wikipedia
Physicist - Wikipedia




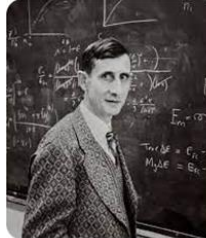
 Your Free Career Test
What does a Physicist Do, Job Descri...




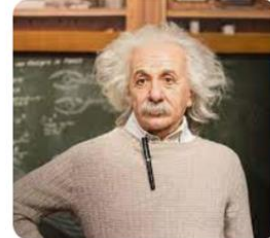
 Careers Wales - GOV.WALES
Physicist - Job role





 National Institute of Health
The Physicist Who is W...





 National Geographic
Freeman Dyson, legendar...




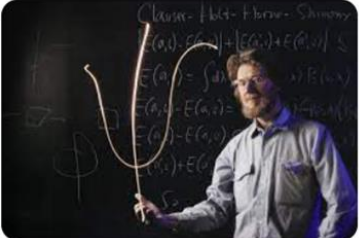
 OwlGuru.com
What Do Physicists Do (includin...





 Cincinnati Children's Blog - Cincinnati Children's H...
What is a Physicist doing in MRI? - Cincinnati Childre...




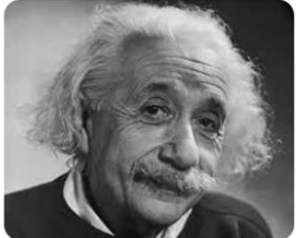
 Becomepedia
How to Become a Physicist




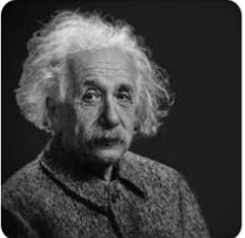
 Scientific American
The Universe Is Not Locally Real, and the Phy...





 Womananthology
I am a medical physicist and radiation is my super stre...




 Medium
I (don't) look like a physicist. The m...



 Discover Magazine
20 Brilliant Quotes From Albe...



 Facebook - 登录或注...
Physicist Page - The 10...

CFM a diverse workforce?

When we searched in Google,

 vida cotidiana

 cuántica

 y química

 que estudia la

 ciencia

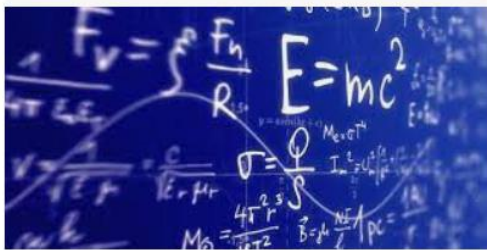
 que es la ciencia


 importancia de

 secundaria

 mecánica cuántica

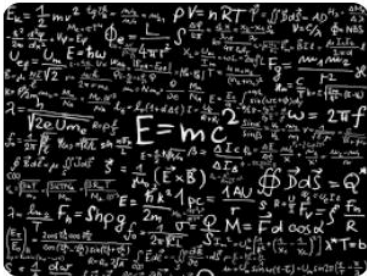
>




 Concepto
Física - Concepto, objeto de estudio, ramas de la física



 Areaciencias
Qué es la Física? Ramas de la Física Aprende Facil




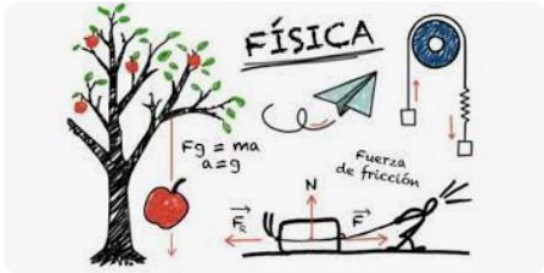
 ComoFunciona
Física: Qué es, cómo funciona, sus carac...




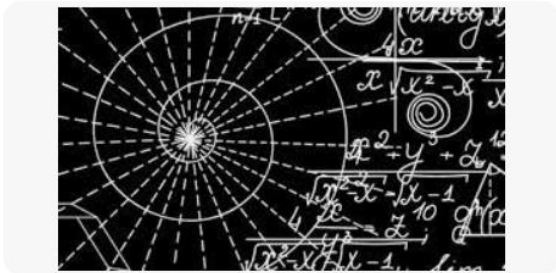
 Aprendí Hoy...
Qué es la Física? - Definición y Objeto de Estudi...




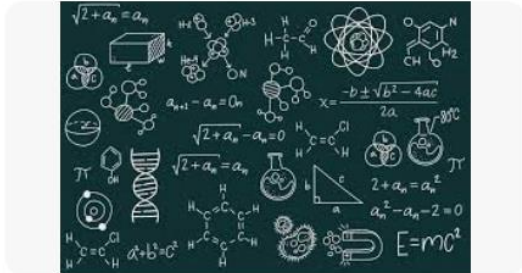
 Wikipedia
Física - Wikipedia, la enciclopedia libre



 Colegio Santiago Apóstol
La importancia de estudiar física en la escuela secundaria - C...



 Diario La República
Qué estudia la Física, para qué sirve y qué hace un físico? | res...



 Educación 3.0
Prepara la asignatura de Física con estos mapas mentales



 YouTube
 ¿Qué es la física? - Definición, ramas, ejemplos, clasific...

CFM a diverse workforce?

When we searched in Google, for phisicist

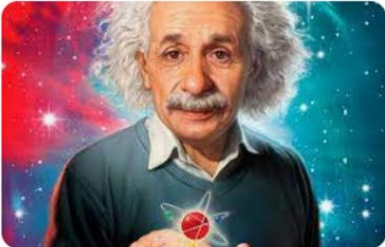
Google


physicien

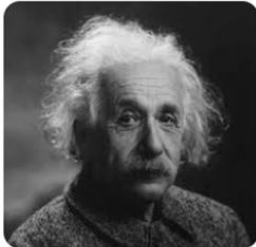
Guztiak Irudiak Maps Bideoak Erosketak Gehiago Tresnak

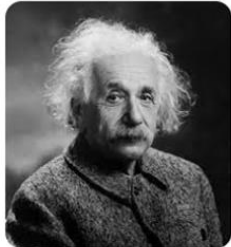
Bildumak Bilaketa segurua


homer simpson silicon valley ingénieur physique métier physiciens celebres


 Trust My Science
20 physiciens remarquables qui ont révolutionn...


 Gala
<https://www.gala.fr/imgre/fit/...>

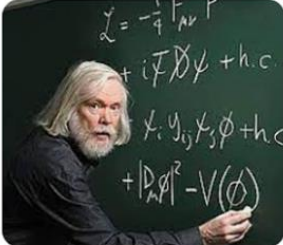
 Vikidia
Physicien - Vikidia, l'encyclopé...

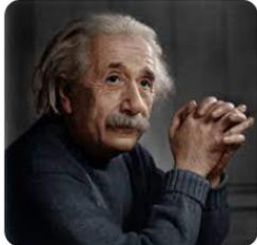
 Wikipédia
Albert Einstein — Wikipédia


 Futura-Sciences
<https://cdn.futura-sciences.com/buildsv6/ima...>


 CIDJ
Physicien / Physicienne : métier, études, diplômes, s...


 RTL
<https://images.rtl.fr/~c/770v513/rtl/ww...>

 Wikipédia
John Ellis (physicien) — Wikipédia

 Futura Sciences
<https://cdn.futura-sciences.co...>

 The Times of Israël
Un Israélien a inspiré l'une des plus grandes dé...

 L'Internaute
Stephen Hawking : biographie du physicien, ...

 Shutterstock
Physicien : 13 640 images, photos et i...



leire larizgoitia



egunkaria



cern



nasako



simone eizagirre



maia garcia



garcia fidalgo



atariko proba



migel etxenike



Wikipedia
Brian Cox (fisikaria) - Wi...



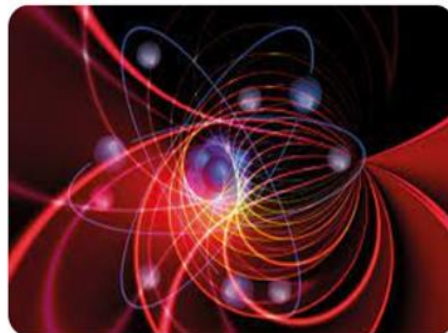
Wikipedia
Friedrich Kohlrausch (fis...



Alea.eus
Marian Garcia Fidalgo fisikaria izango da San Prud...



Zientzia Kaiera
Leire Larizgoitia, fisikaria: "Egiten ari ga...



Elhuyar Aldizkaria
Fisikaren erronkak - Elhuyar Aldizkaria



Berria
Argitasun bila materialetan | Bizigiro | Berria



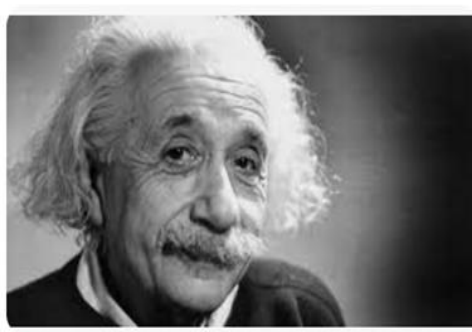
Lea-Artibai eta Mutri...
Zientziaren Giltzak Elka...



Zientzia Kaiera
Simone Eizagirre, fisikaria: "Nire ustez..."



Berria
Hidrogenoaren koreografia argi hodietan | B...



Argia
Albert Einstein fisikaria hil zen AEBetan



Berria
Maia Garcia-Vergniory fisikaria APS Fell...



Berria
Materia, bere buruaz galdezka | Gizarte...

CFM: A DIVERSE WORKFORCE?

- There is no static single description
- How could the results in Basque be so different?
- We have the option to change the general “image” of what a physicist looks like.
- And get it closer to what it actually is (more diverse) if we don’t want to leave any talent behind (not self-identified as “physicist”)



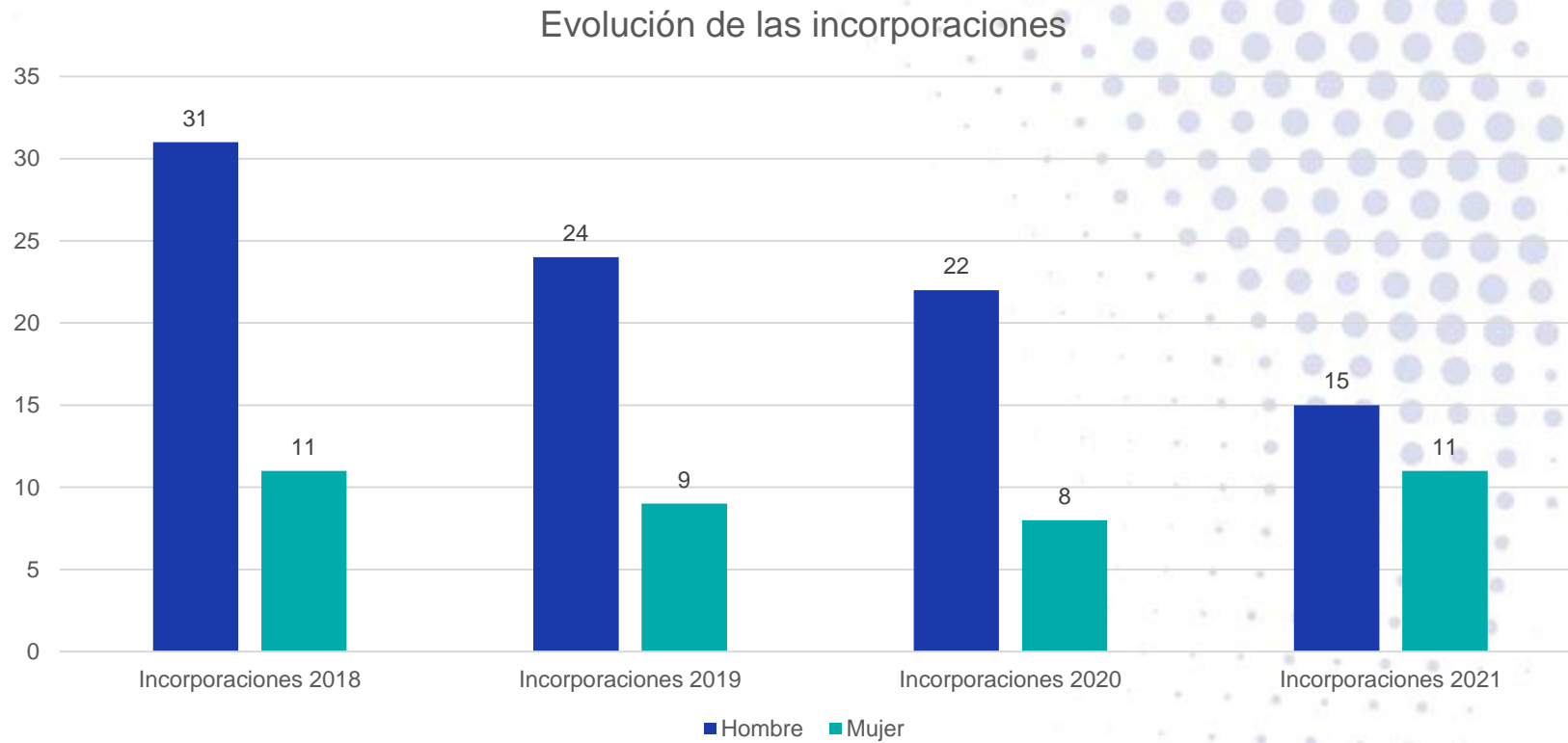
CFM a diverse workforce?

Stereotypes

<https://youtu.be/fXBxOaLcMZg>



CFM: A DIVERSE WORKFORCE?



Source: Informe sobre los procesos de contratación del CFM (2022)

CFM: A DIVERSE WORKFORCE?

	Hombre		Mujer		Total	
	Cantidad	%	Cantidad	%	Cantidad	%
Visitantes 2018	33	70,21%	14	29,79%	47	100,00%
Visitantes 2019	27	65,85%	14	34,15%	41	100,00%
Visitantes2020	11	64,71%	6	35,29%	17	100,00%
Visitantes 2021	14	70,00%	6	30,00%	20	100,00%

Source: Informe sobre los procesos de contratación del CFM (2022)

PhD fair

	Hombre		Mujer		Total	
	Cantidad	%	Cantidad	%	Cantidad	%
Incorporaciones 2018	4	50%	4	50%	8	100%
Incorporaciones 2019	5	100%	0	0%	5	100%
Incorporaciones 2020	3	60%	2	40%	5	100%
Incorporaciones 2021	3	50%	3	50%	6	100%
Incorporaciones 2022	2	50%	2	50%	4	100%
Total	17	60,71%	11	39,29%	28	100,00%

Source: Informe sobre los procesos de contratación del CFM (2022)

02

What is unconscious bias?

The bias in all of us



WHAT IS UNCONCIOUS VIAS?

Unconciouss bias and hiring-pools

- Making decisions about candidates is hard work and depends on being able to judge them **ENTIRELY ON THEIR MERITS.**
- Predisposition to prefer the sort of people by whom we are surrounded and learn from them.
 - We are often unaware that we redefine merit to justify discrimination.
- We are heavily influenced in ways that are completely hidden from our conscious and our mind in how we evaluate both others and ourselves.

<https://pubmed.ncbi.nlm.nih.gov/22902284/>

<http://www.ncbi.nlm.nih.gov/pubmed/15943674?dopt=Abstract&holding=npg>

<http://dsclab.uchicago.edu/documents/Kinzler%20Spelke%202011,%20Cognition.pdf>

http://www.nature.com/nature/journal/v495/n7439/full/495033a.html?WT.mc_id=TWT_NatureNews
http://www.nature.com/nature/journal/v495/n7439/full/495033a.html?WT.mc_id=TWT_NatureNews

<http://www.goodreads.com/book/show/11468377-thinking-fast-and-slow>

WHAT IS UNCONCIOUS VIAS?

Unconciouss bias and hiring-pools

- There are such strong cultural stereotypes that they feel truthful, when research has shown over and over again that they are not.
- In a way, we unconsciously discriminate in favour of things that feel “natural” and “right” as opposed to those that are less familiar, but might actually be correct.
- **Orchestra example:** “*blind*” auditions

<http://curt-rice.com/2013/10/01/what-the-worlds-best-orchestras-can-teach-us-about-gender-discrimination/>
https://www.aeaweb.org/articles?id=10.1257%2Faer.90.4.715&source=post_page-----deda93da109b-----
<http://www.sciencedirect.com/science/article/pii/S0022103174900596>
<http://www.ncbi.nlm.nih.gov/pubmed/12088246?dopt=Abstract&holding=npg>
<http://news.sciencemag.org/math/2014/03/both-genders-think-women-are-bad-basic-math>
<http://www.pnas.org/content/111/12/4403.abstract>





WHAT IS UNCONCIOUS VIAS?

What can we do to avoid unconciouss bias?

- ✓ When preparing for a committee meeting or interview try to **slow down** the speed of your decision making.
- ✓ **Reconsider the reasons** for your decision, recognizing that they may be post-hoc justifications.
- ✓ **Question cultural stereotypes** that seem truthful. Be open to seeing what is new and unfamiliar and increase your knowledge of other groups.
- ✓ Remember **you are unlikely to be more fair and less prejudiced** than the average person.
- ✓ You can **detect unconscious bias more easily in others than in yourself** so be prepared to call out bias when you see it.

'By recognizing our bias, our conscious processes can counteract it. But we need to slow down and reflect when making decisions to enable us to do this.'

Professor Uta Frith

Unconscious bias can be most promising route to breaking barriers to equality.

Skov, T. Unconscious Gender Bias in Academia: Scarcity of Empirical Evidence. *Societies* 2020, 10, 31. <https://doi.org/10.3390/soc10020031>

Amodio, D. M., & Swencionis, J. K. (2018). Proactive control of implicit bias: A theoretical model and implications for behavior change. *Journal of Personality and Social Psychology*, 115(2), 255–275. <https://doi.org/10.1037/pspi0000128>



03

How are we going to deal with this?

GENDER AWARE HIRIGN PROCESSES



GENDER AWARE HIRING PROCESSES

Need to check our pipelines regularly, as they might be leaking!

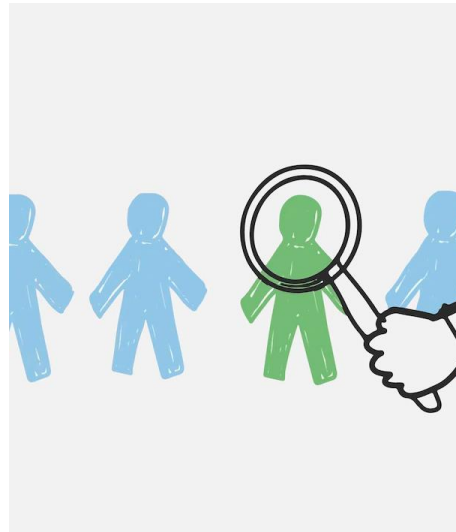
And that would mean we are loosing talent.



GENDER AWARE HIRING PROCESSES



**Reception of
candidatures or CVs**



**Screening the
Applicants**



**Conducting
interviews**



**Welcoming the new
members**



GENDER AWARE HIRING PROCESSES

Reception of candidatures

Aim: increasing the number of female candidates.

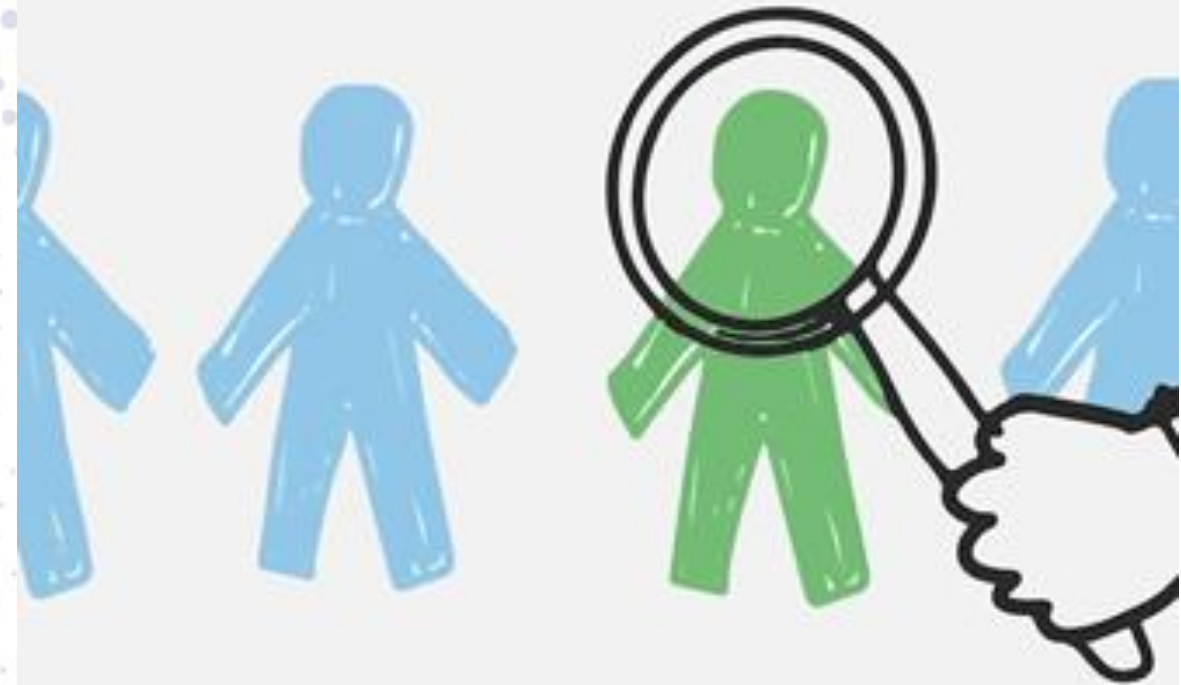
- ✓ Weave a network of contacts (Emakumeak Zientzian...)
- ✓ Communicating commitment to equality
- ✓ Inclusive use of language and images
- ✓ **Design realistic job offers.** Differentiate between **requirements and evaluable aspects** (women apply when they are sure they meet more than 90% of requirements vs. men apply with 70%)



GENDER AWARE HIRING PROCESSES

Screening the applicants

- ✓ Assess skills and informal skills
- ✓ The use of informal information might affect negatively to female candidates.
- ✓ **Be aware that reference letters of women and men tend to be written differently.**
- ✓ Make sure female candidates are also interviewed.

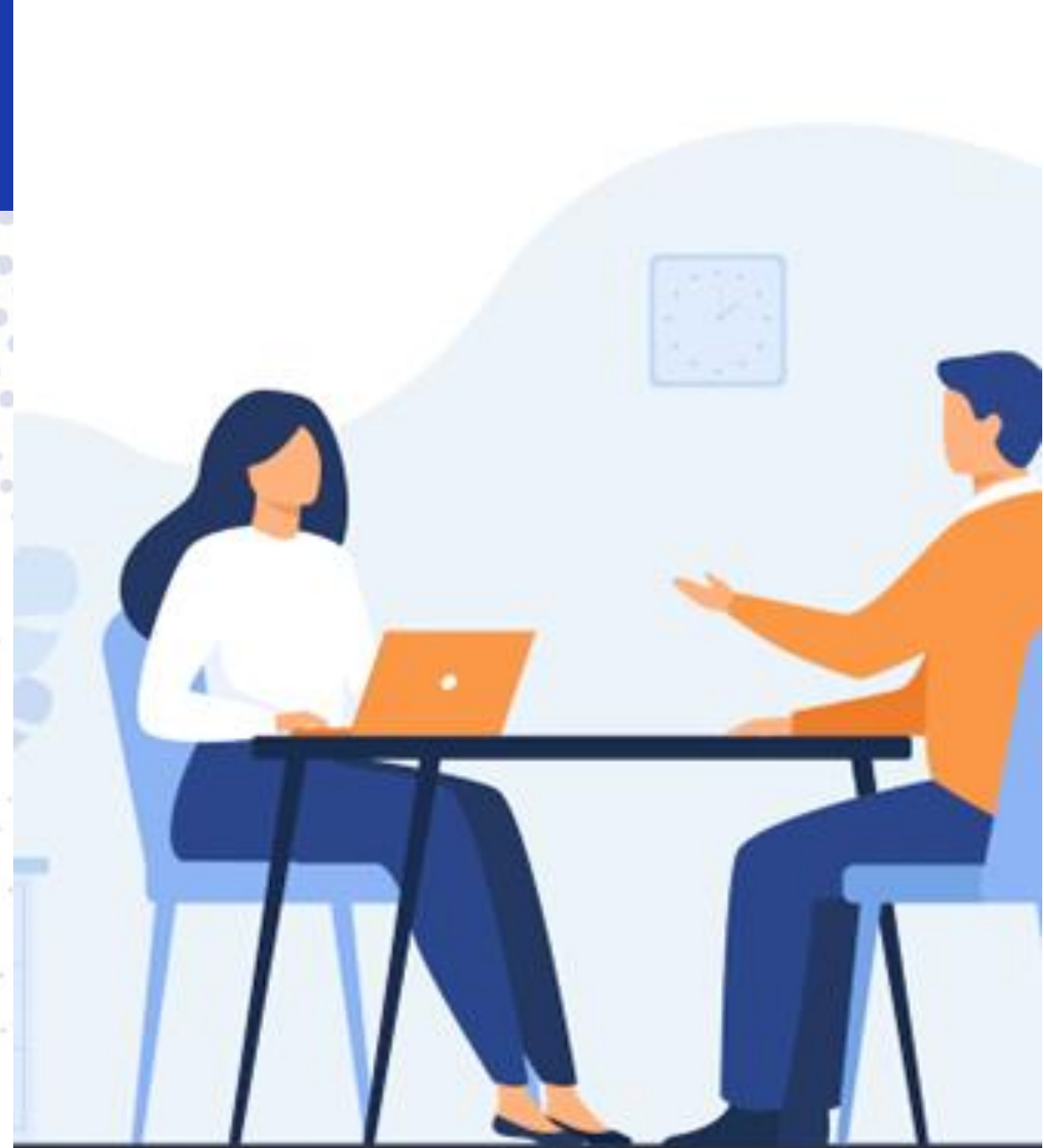


GENDER AWARE HIRING PROCESSES

Conducting interviews

- ✓ Awareness raising for interviewers
- ✓ Research shows that gender bias is kept alive by people who think it's dead
- ✓ Try to have a pool of interviewers, with men and women among them.
- ✓ No personal information should be asked.

<https://phys.org/news/2020-06-gender-bias-alive-people-dead.html>



GENDER AWARE HIRING PROCESSES

Welcoming new members

- ✓ Explain commitment to equality
- ✓ Include gender equality training and harassment protocol in the Welcoming Policy.



elhuyar 
ezagutuz aldatzea

www.elhuyar.eus