



ICHEP  
2022

# Why Diversity Charters should contain equality actions

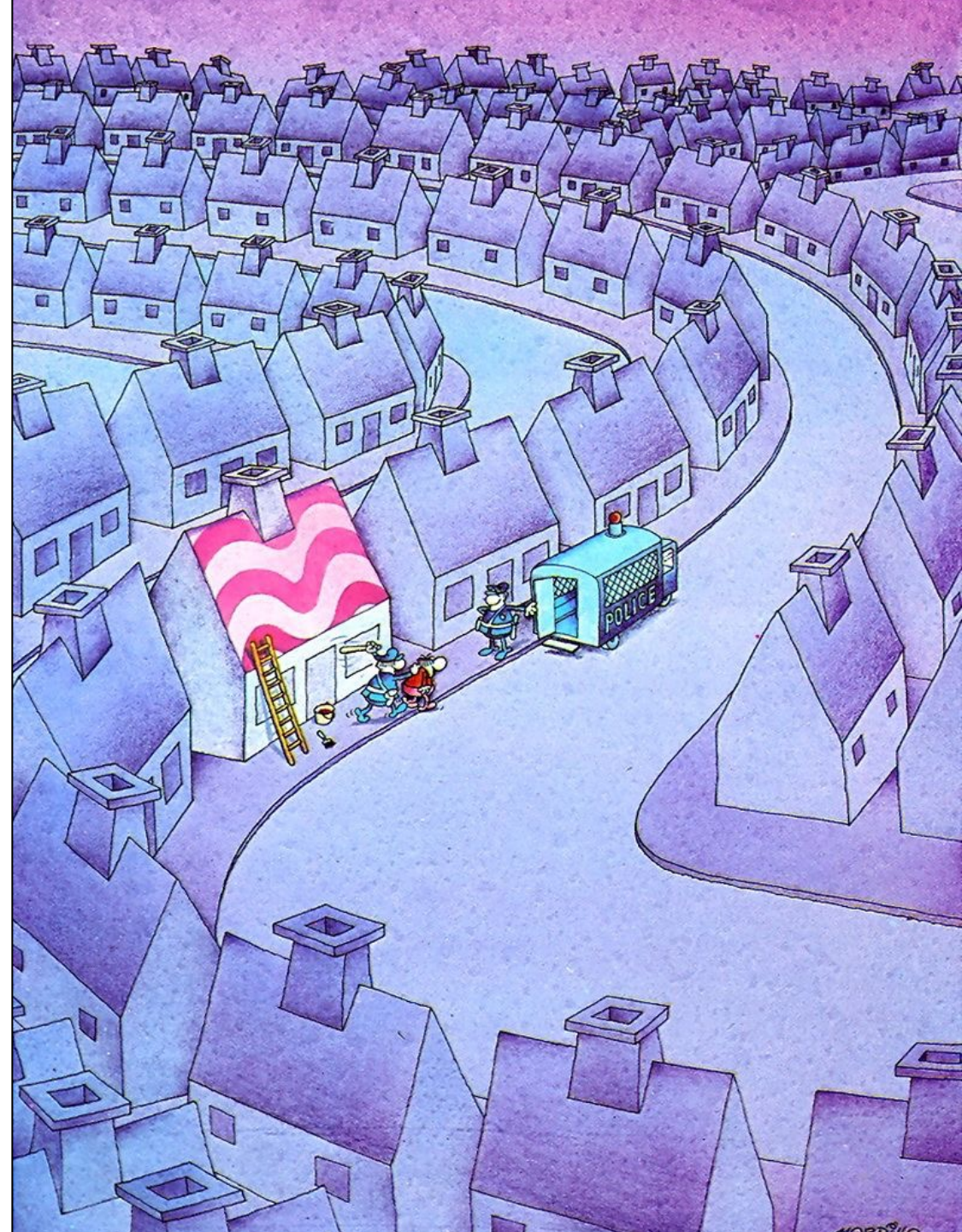
Alessia Bruni (INFN, Bologna)

ICHEP 2022

9 Jul 2022, Room 7

*You can be different only if you have equal power*

Mordillo, Argentina







ALICE control room  
International coll. composed by  
people from all continents

LHC control room – mainly staff

ICHEP 2022 09/07/22



Alessia Bruni, INFN Bologna

## Diversity and inclusion in physics

5 July 2022, CERN, first Run3  
p-collisions at 13.6 TeV a

# Diversity and inclusion in physics

Motivation:

- In physics, research institutions and organisations *are «paying increasing attention» to diversity and inclusion*
- «we (the physicists)» are writing and adopting gender equality plans, codes of conduct, diversity charter, using approaches mainly based on our personal experience and background [of course this can be different in different institutions]

but

- the complexity of this field is often overlooked by physicists
- this is not really a field where we are expert in
- As scientists we have a huge responsibility, as we are seen as a model. [I.e. to facilitate the introduction of racial laws in Italy, a document signed by scientist was released in 1938 on the existence of human races; scientific racism is still an issue]



# Often we do not share the same terminology

- **Difference**: the way people are dissimilar (our common humanity tends to make people more similar than dissimilar, but this is often ignored). **Difference** should be preferred to **diversity** (from latin divertere = change direction from the main road)
- **Equality**: the state of being equal, especially in status, rights, or opportunities. Not used here with the meaning of **similar**: having a resemblance in appearance, character ..
- **Inclusion**: i) the action or state of including or of being included within a group or structure  
ii) the practice or policy of **providing equal access to opportunities and resources** for people who might otherwise be excluded or marginalized

- Words are relevant, they create reality as we know
- Reality and words are not neutral in our word, mainly built to support people with privileges
- Diversity «classified» by social categories regardless of personal experiences and identities
- Human experiences are «fluid»
- Difference between people within the same category can be larger of the difference of mean values of the categories



Inserting a slide from Helene Gotshel, this session about the construction of diversity

## Theoretical Background

### Dynamic or Deconstructive Understanding of Diversity

Categories of diversity are sociocultural structures to order people. They are concepts which create and support power structures. They can overlap, are **intersectional**. We are **made** different to create and legitimate inequality in society.



<https://www.gendercampus.ch/de/blog/post/diversity-management-kritisch>





# A digression on human rights

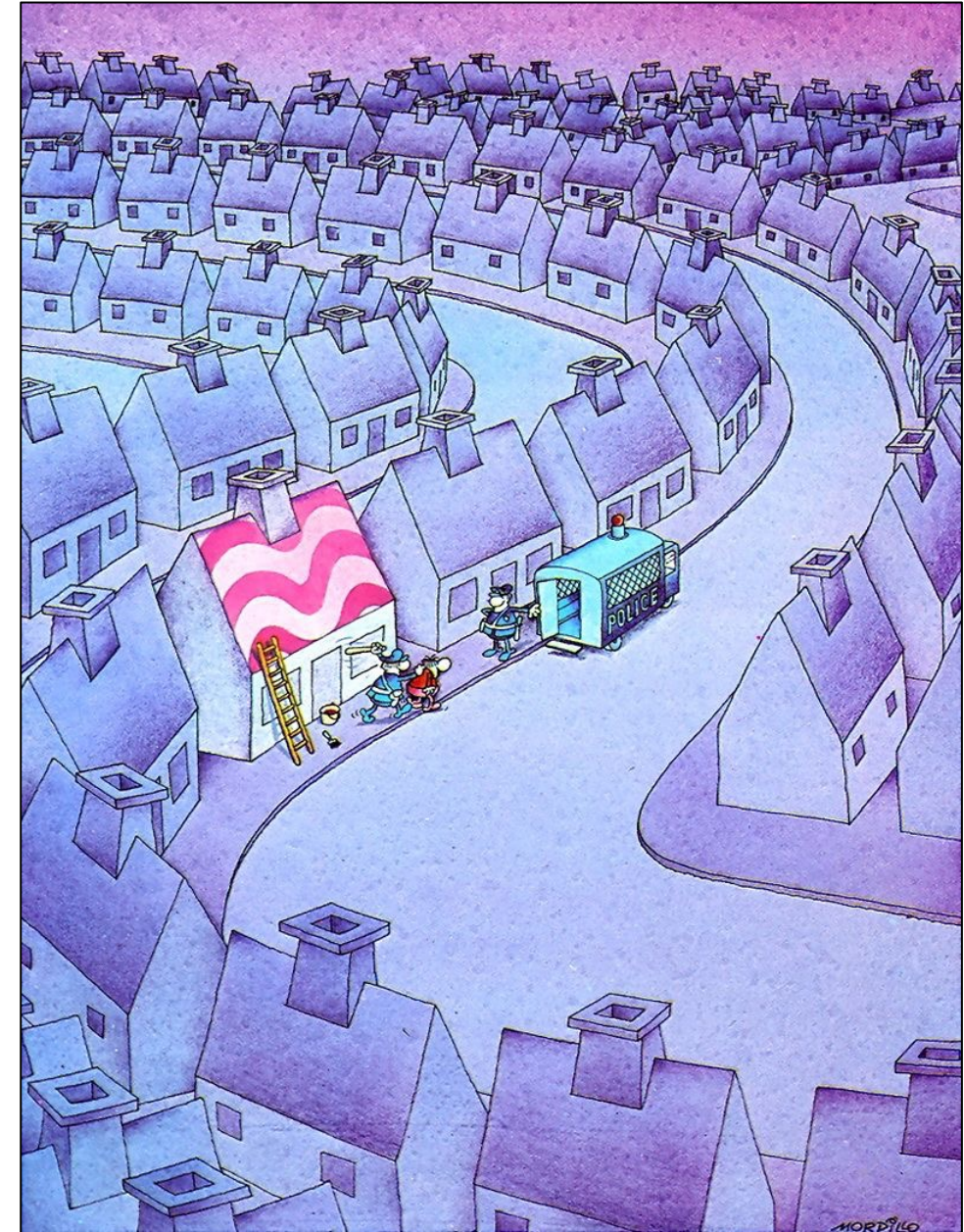
Eleanor\_Roosevelt  
UDHR's *mother*

International bill of human rights, 1948:

- 1) **All human beings are born free and equal in dignity and rights.** ...should act towards one another in a spirit of brotherhood.
- 2) ...**without distinction of any kind**, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

**Not all rights are equal**  
**equality in dignity in right and no discrimination as origin of all the rights**

*equality, freedom, diversity of other people ensure our freedom*





## An example, *Italian Constitution, 1946*

«All citizens possess *equal social dignity* and are *equal before the law, without distinction* of sex, race, language, religion and political orientation, personal and social conditions.

*It is the duty of the Republic to remove economic and social obstacles which, by limiting the freedom and equality of citizens, prevent the full development of the natural person and the actual participation of all workers in the political, economic and social organisation of the country.»*

Few lines to indicate **the values:** *equal social dignity* [formal equality] and the **strategy:** *remove obstacles to this equality condition* [making equality effective]

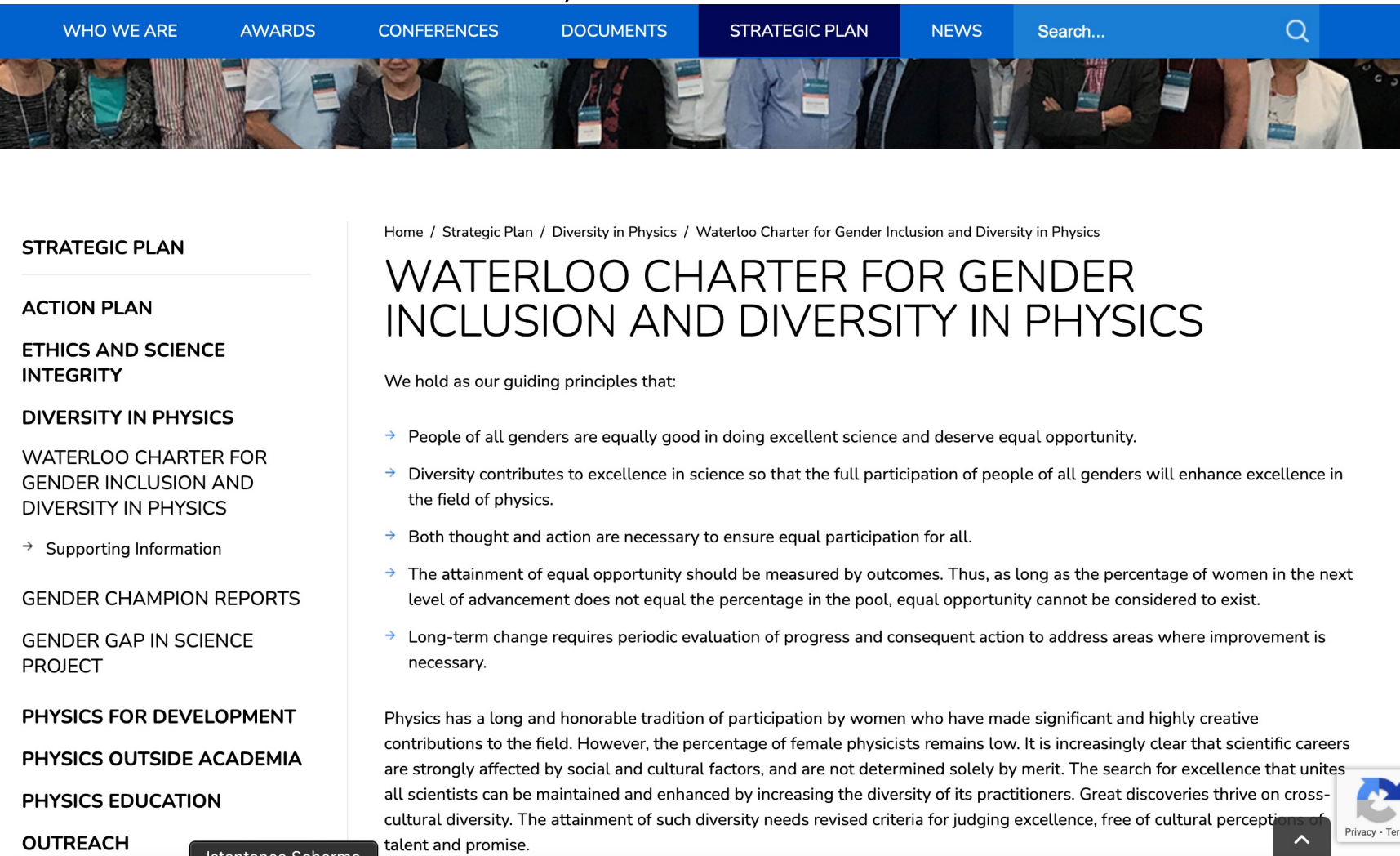
The difference is possible when equal effective conditions are ensured

# Diversity charters in physics



# IUPAP - International Union of Pure and Applied Physics

established in 1922, Brussels



The screenshot shows the IUPAP website's navigation bar with links: WHO WE ARE, AWARDS, CONFERENCES, DOCUMENTS, STRATEGIC PLAN, NEWS, and a search bar. Below the navigation bar is a banner image of a group of people. The main content area is titled 'WATERLOO CHARTER FOR GENDER INCLUSION AND DIVERSITY IN PHYSICS'. It includes a breadcrumb trail: Home / Strategic Plan / Diversity in Physics / Waterloo Charter for Gender Inclusion and Diversity in Physics. The text states: 'We hold as our guiding principles that:' followed by a list of five principles. A paragraph below explains the context: 'Physics has a long and honorable tradition of participation by women who have made significant and highly creative contributions to the field. However, the percentage of female physicists remains low. It is increasingly clear that scientific careers are strongly affected by social and cultural factors, and are not determined solely by merit. The search for excellence that unites all scientists can be maintained and enhanced by increasing the diversity of its practitioners. Great discoveries thrive on cross-cultural diversity. The attainment of such diversity needs revised criteria for judging excellence, free of cultural perceptions of talent and promise.'

**STRATEGIC PLAN**

**ACTION PLAN**

**ETHICS AND SCIENCE INTEGRITY**

**DIVERSITY IN PHYSICS**

WATERLOO CHARTER FOR GENDER INCLUSION AND DIVERSITY IN PHYSICS

→ Supporting Information

**GENDER CHAMPION REPORTS**

**GENDER GAP IN SCIENCE PROJECT**

**PHYSICS FOR DEVELOPMENT**

**PHYSICS OUTSIDE ACADEMIA**

**PHYSICS EDUCATION**

**OUTREACH**

Instantanea Schermo

Privacy - Terms

- IUPAP has a structured approach
- Trying to ensure equal conditions to all
  - Financial support for free circulation of scientists
  - Attention to women and under-represented groups
  - Contrast to harrassment
  - ...

# IUPAP

- **Waterloo Charter for Gender Inclusion and Diversity in Physics**  
<https://iupap.org/strategic-plan/diversity-in-physics-2/waterloo-charter-for-women-in-physics/>
- “We hold as our guiding principles that:
- *People of all genders are equally good in doing excellent science and deserve equal opportunity.*
- *Diversity* contributes to excellence in science so that the full participation of people of all genders will enhance excellence in the field of physics.
- Both thought and *action* are necessary to *ensure equal participation for all*.
- The attainment of *equal opportunity* should be measured by outcomes. *Thus, as long as the percentage of women in the next level of advancement does not equal the percentage in the pool, equal opportunity cannot be considered to exist.*
- Long-term change requires periodic evaluation of progress and consequent action to address areas where improvement is necessary.
- *Physics has a long and honorable tradition of participation by women who have made significant and highly creative contributions to the field. However, the percentage of female physicists remains low. It is increasingly clear that scientific careers are strongly affected by social and cultural factors, and are not determined solely by merit. ...”*

- Equality [formal]  
+  
• Ensure equal opportunity [making equality effective]
- Several requests to conferences ....: financial supports, ensure parity ...
- Statistics used as indicators to monitor parity for all



# CERN

Code of Conduct based on following core values:

- 1) Integrity
- 2) Commitment
- 3) Professionalism
- 4) Creativity
- 5) Diversity

No much elaboration on equal opportunity; equality is not indicated as core values

## The Diversity Value

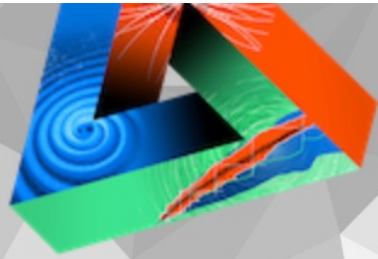
**Appreciating differences, fostering equality, and promoting collaboration.**

*CERN's excellence derives from an environment in which the knowledge and perspectives of a diverse workforce are valued and dialogue is encouraged at all levels.*

As CERN contributors, we:

- Respect and value differences.
- Promote inclusiveness in the workplace in terms of both personal characteristics and professional abilities.
- Demonstrate team spirit and invest in team building.
- Treat others with tact, courtesy and respect.
- Abstain from and actively discourage discrimination in all forms.
- Avoid offending others by exercising restraint, and are aware that statements or actions not intended to be offensive to another person may be perceived as such.
- Refrain from unpleasant or disparaging remarks or actions, in particular on the basis of sex, age, religion, beliefs, nationality, culture, ethnicity, race, sexual orientation, status at CERN, disability, or family situation.

<https://diversity-and-inclusion.web.cern.ch/code-conduct>



# JENAA

## Joint ECFA-NuPECC-APPEC Activities

## Diversity Working Group

ECFA, NuPECC and APPEC recognise the importance of diversity as a motor to boost productivity and innovation, fight prejudice and discrimination and contribute to the improvement of social and economical standards.

The three organisations joined together to propose a [Diversity Charter](#) to be signed by research organisations, collaborations and conferences within the fields of Particle Physics, Nuclear Physics and Astroparticle Physics, who value diversity and commit to promote equal opportunities at all levels.

In a first phase, diversity within the different signatories will be [monitored](#). To simplify the task of monitoring for all partners involved, a survey has been made available to be filled out on a voluntary and anonymous basis by affiliated people and participants to the signatories. Initially, just a few basic variables are proposed for data collection in order to simplify privacy issues. If any signatory

### Signatories of the Diversity Charter

From ECFA:

- Collaborations: ATLAS, CMS, LHCb, NA61/SHINE, CALICE
- Conferences: HEP-EPS2021, PANIC 2021, ICRC 2021,

From NuPECC:

- Collaborations: AGATA, ALICE, LNL, n\_ToF, NUSTAR, GANIL, PANDA, ISOLDE
- Conferences: 13th ISSNS, SSNET 2020, ICACS-29, SHIM-11, QM 2022, SSP 2022, NPA-X, INPC 2022, TCPC, PSI 2022, DREB 2022

From APPEC:

- Collaborations:
- Conferences:

### Joint ECFA NuPECC APPECC

- European Committee for Future Accelerators
- Nuclear Physics European Coll.
- Astroparticle Physics European Consortium

Diversity Charter + monitor statistics. No additional requests



## 1 Definition of Diversity

The joint Diversity Charter proposed by the consortia APPEC [1], ECFA [2] and NuPECC [3] has Diversity as its principle, understood as the **acknowledgement, respect and appreciation** of the reality that people differ in many ways, visible or invisible, mainly in **age, gender and sexual orientation, national and ethnic origin, civil status and familial situation, religious convictions, political and philosophical opinions, and physical ability.**

Personal comments:

This approach looks familiar, but is obsolete (~1930s): **each humans is unique and cannot be reduced to social categories !**

This approach do not contain a strategy to increase diversity or empowerment of people of under-represented groups. **No reference to social conditions.** The goals and criteria of data collection is not clear.

We humbly hope to contribute to push organisations in physics to improve the approach on equality and diversity policies

# Diversity in private sectors - Why Diversity Programs Fail -1

- Frank Dobbin and Alexandra Kalev <https://hbr.org/2016/07/why-diversity-programs-fail>
- Method: analyzing three decades' worth of data from more than 800 U.S. firms and interviewing hundreds of line managers
- Business started to care about diversity when they started to loose money to settle sex/race discrimination claims. **They have also expanded training and other diversity programs. But on balance, equality isn't improving.** Firms have long relied on diversity training to reduce bias on the job, hiring tests and performance ratings to limit it in recruitment and promotions, and grievance systems to give employees a way to challenge managers.

Such measures often result in opposite direction, as people often rebel against rules to assert their autonomy.

**% CHANGE OVER FIVE YEARS IN REPRESENTATION AMONG MANAGERS**

| Type of program              | White |       | Black |       | Hispanic |       | Asian |       |
|------------------------------|-------|-------|-------|-------|----------|-------|-------|-------|
|                              | Men   | Women | Men   | Women | Men      | Women | Men   | Women |
| Mandatory diversity training |       |       |       | -9.2  |          |       | -4.5  | -5.4  |
| Job tests                    |       | -3.8  | -10.2 | -9.1  | -6.7     | -8.8  |       | -9.3  |
| Grievance systems            |       | -2.7  | -7.3  | -4.8  |          | -4.7  | -11.3 | -4.1  |

# Diversity in private sectors - Why Diversity Programs Fail - 2

Result: diversity is boosted when managers

- are involved in solving the problem
- and working side-by-side as «equal» breaks down stereotype,

which leads to more equitable hiring and promotion.

% CHANGE OVER FIVE YEARS IN REPRESENTATION AMONG MANAGERS

| Type of program                   | White |       | Black |       | Hispanic |       | Asian |       |
|-----------------------------------|-------|-------|-------|-------|----------|-------|-------|-------|
|                                   | Men   | Women | Men   | Women | Men      | Women | Men   | Women |
| Voluntary training                |       |       | +13.3 |       | +9.1     |       | +9.3  | +12.6 |
| Self-managed teams                | -2.8  | +5.6  | +3.4  | +3.9  |          |       |       | +3.6  |
| Cross-training                    | -1.4  | +3.0  | +2.7  | +3.0  | -3.9     |       | +6.5  | +4.1  |
| College recruitment: women*       | -2.0  | +10.2 | +7.9  | +8.7  |          | +10.0 | +18.3 | +8.6  |
| College recruitment: minorities** |       |       | +7.7  | +8.9  |          |       |       |       |
| Mentoring                         |       |       |       | +18.0 | +9.1     | +23.7 | +18.0 | +24.0 |
| Diversity task forces             | -3.3  | +11.6 | +8.7  | +22.7 | +12.0    | +16.2 | +30.2 | +24.2 |
| Diversity managers                |       | +7.5  | +17.0 | +11.1 |          | +18.2 | +10.9 | +13.6 |

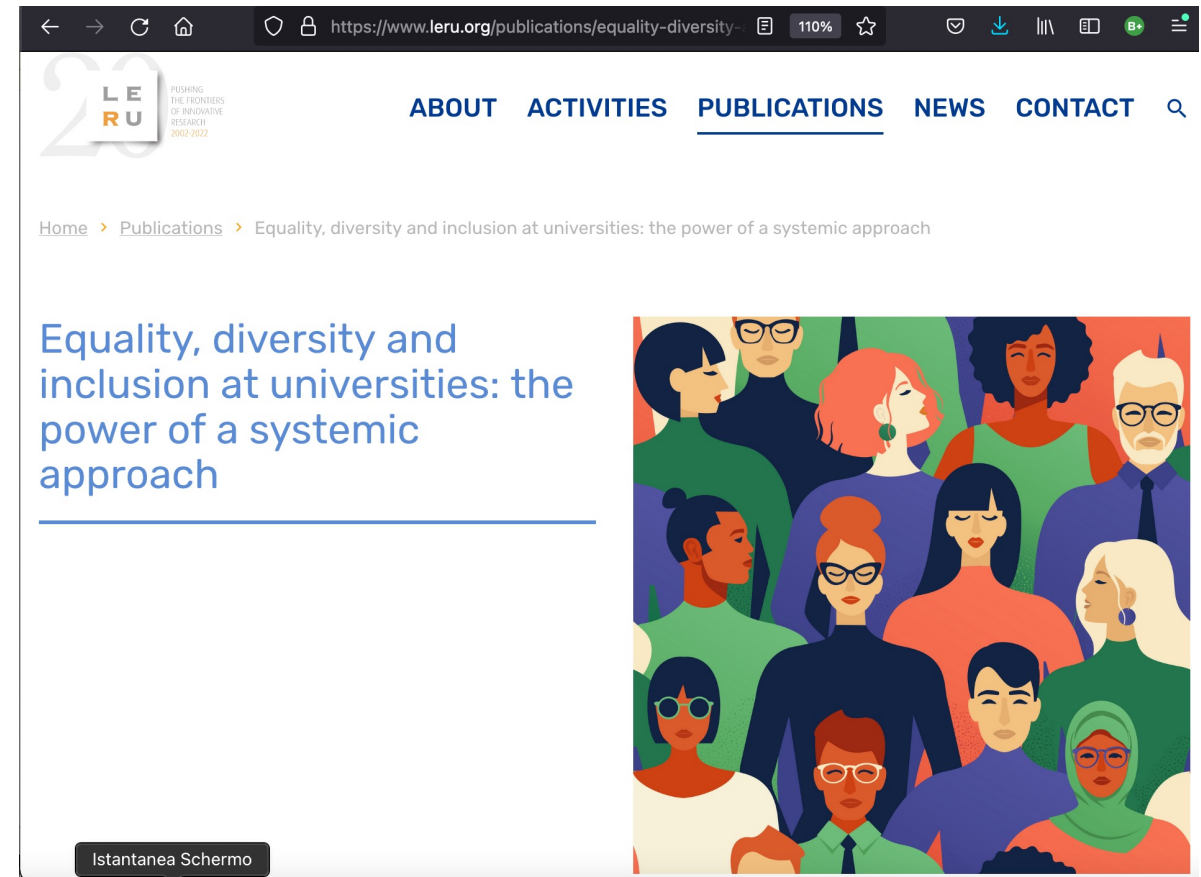


# LERU League of European Research Universities

<https://www.leru.org/publications/equality-diversity-and-inclusion-at-universities>

Good examples exist

LERU universities are proposing a systemic approach to equality, diversity and inclusion



# Summary

- Good science requires the contribution of all
- The recognition of the equality in dignity and rights and equal opportunities are the necessary condition to express our diversity
- Human diversity cannot be reduced to sociocultural structures
- Increase diversity in research organisations requires a systemic approach to equality, diversity and inclusion

## For the discussion - Equality measurements to increase diversity: quota in committees, equal success rate in recruitments

- Quotas in committees where the representation of difference is relevant: i.e. parliaments or management comm, typically these comm. have «members» (from latin *membrum virile*, the male genital organ) from different geographical origin, of different political opinions. For such committees a system of quotas (for male members) is already in place, they could be easily enlarged to represent people expressing different point of views or needs. In case, the number of «members» can be enlarged
- the leaky pipe, recruitments or promotions: equal success rate for people of different sex or people from under represented groups should be asked. The success rate in recruitment and promotion should be monitored.



# For the discussion - *The only race I know is the human one* (Albert Einstein)



Angelica Dass  
Humanae project  
<https://angelicadass.com/photography/humanae/>