Dear colleagues,

IUPAC has been concerned for many years with societal issues, but this is the first time that a symposium is devoted to this theme, allowing for a more in-depth reflection and discussion.

It was therefore a challenge to address this issue, which is raising as much as interest as scepticism. Indeed, the sceptics told us and still tell us: what an illusion! We have already tried everything, it will not work... and yet, if the benefits of chemistry for society are universally recognized, there is a part of mistrust that it is useless to ignore.

To reach this goal, we decided first to open the involvement beyond the community of chemists. Therefore, we wanted a multidisciplinary participation in the debate by welcoming personalities coming from sociology, philosophy, history of science, media, and also from consumers associations. We take full responsibility for this choice, which resulted in about 2/3 of non-chemists and 1/3 of chemists, mainly from industry.

Some colleagues have misunderstood this choice. Let's quote just one example: the following remark heard in the corridor "Hey! I met this person. What is he doing in a chemistry congress?".

May be academic chemists were not sufficiently represented. However, the diversity we wanted was positively recognized if we consider the high attendance in the three sessions that have been organised.

Symposium 4. Chemistry and Society

S4.1 Chemistry and Society: current knowledge

S4.2 Scientific outreach vs teaching, perception and communication in chemistry

S4.3 Chemistry and Society: Intensifying the dialogue
The objective of the first session was to establish an overview of the public's perception of chemistry at the international level.

The second session focused on identifying means to increase knowledge in chemistry, in particular out of school.

From the third session, we were expecting solutions to improve the dialogue between chemists and citizens.

During the first two sessions, we were pleased to see the participation of concerned delegates, showing a real openness to exchange and a willingness to pursue to this experience.

A novelty was introduced in the third session by opening it to the public at large, thus outside the chemistry community.

What can we report on this experience?

On the basis of the registrations received for the session open to the public, we regret a much too low participation of non-chemists. We would recommend that a significant investment is made in communicating the event well in advance in order to increase public participation.

Like sessions 1 and 2, session 3 included keynote and invited conferences, but the novelty was the organization of a round table bringing together the personalities listed here.

### Symposium 4. Chemistry and Society

**Host**

Mathieu VIDARD (France-Inter, Paris, FR) Producer and host of scientific programs

**Panellists**

Ulrike FELT (University of Vienna, AT) Professor of science and technology studies

Bernard FERINGA (University of Groningen, NL) Professor of molecular sciences

Nobel Laureate 2016 in chemistry

Liz HARRIMAN (Toxic Use Reduction Institute, USA) Deputy-director of Massachusetts TURI

Stéphane HOREL (Paris, FR) Investigative reporter - Le Monde

Corinne LEPAGE (President of LRC - Cap21, FR) Politician

Pelle MOOS (European consumer organization, BEUC, BE) Senior safety and health policy officer

Thorsten PINKEPANK (BASF, DE), Vice-president BASF, Sustainability strategy

Richard THOMMERET (Solvay, BE), Research and innovation communication director

IUPAC PARIS 2019

Each panellist had the opportunity to present his or her conception of the relationship between chemistry and society, which is of course very dependent on the environment in which he or she is working.
We noted a real willingness to exchange from all parties, but this did not lead to concrete propositions. This is not surprising. We can’t expect to change the world within two hours.

However, it is important to report here the main messages delivered by the panellists on the ways to create better conditions for dialogue with the public.

Let me highlight some of them:

- It was firmly expressed, in this session as in the other two, that we must stop saying that the public is uncultured or irrational; the public can also bring in a specific knowledge, and establishing a genuine dialogue requires that its opinion is taken into account and respected,

- The importance of developing critical thinking skills from an early age is crucial for allowing future adults to interact constructively,

- Each party must provide quality information, and above all, adapted to the public to which it is addressed,

- It is essential to focus on explaining the choices made versus spending time on lobbying,

- This requires transparency, the ability to open a critical and serious dialogue, the ability to listen to each other without discrediting others at first. Propaganda style is counterproductive and this applies to all stakeholders,

- Both sides should decide changing their habits and take responsibility for their actions.

Again, these are messages gathered from panellists. They may sound as lessons but they are the basis for continuing discussions. “*Good that the chemists start the conversation! But it remains a long way to go!*” said one of the panellists.

Let me also mention this remark coming from the audience and revealing a real problem, that is, “*This discussion took place between people from privileged countries*”. One of the panellists replied with the following words, which were widely repeated in the corridors: "*We are here four men and four women. Five years ago, there would only be men on the stage. Maybe in five years from now, this panel will include Africans.*"

The organizers of this symposium are convinced, given the intense exchanges that happened during these two days, that the effort of dialogue must be continued. At least, part of our community is in demand. What for the other part? We don’t know.
If we consider that Chemistry and Society symposium will be, from now on, part of IUPAC congresses, here are listed some of the lessons we have learned from this experience, and which can benefit to future organisers.

Thank you for your attention.

**Symposium 4. Chemistry and Society**

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<th>POSITIVE POINTS</th>
<th>RECOMMENDATIONS</th>
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<td>• Occurrence of this symposium</td>
<td>• Increase place allowed to round table for increasing exchange with the public</td>
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<td>• Part of our community is concerned</td>
<td>• Work on the communication strategy and improve pre- and post-congress publicity</td>
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<td>• Ready to discuss and adopt an open attitude</td>
<td>• Need to follow-up with interested parties</td>
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<td>• Multidisciplinary approach</td>
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<td>• 2 days of exchanges between organisations and stakeholders</td>
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<td>• Open to the public</td>
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Lydie Valade et Andrée Marquet on behalf of the organizing committee of IUPAC 2019 Symposium 4 “Chemistry and Society”