EURASC Post-Symposium 2024 Assessment: Program and SWOT Analysis *Report of Symposium Chair*

Dear Participants at the EURASC Symposium 2024,

It was a great honor and pleasure for me to have the opportunity to welcome you to the EURASC Symposium 2024, hosted by the Academy of Sciences of Lisbon (ACL), at the inspiring environment of its premises (namely the Salão Nobre, Sessions Room and Cloister). It proceeded smoothly according to the expected Program:

https://drive.google.com/file/d/1VLJOprNflgvKFrEJKY85pPZpEpFvEbWT/view?usp=sharing

https://www.eurasc.eu/eurasc-annualsymposiumceremony-2024/

Past Venues

This Symposium continued the series of Annual Symposia of the EURASC since its foundation, 20 years ago.

In the past 17 years, such symposia were held in the following towns, most of them in Central and Western Europe, mainly in Belgium and France, and it is the 2nd time that the ACL hosts it:

Brussels (2007) / Brussels (2008) / Bologne (2009) / Athens (2010) / Milan (2011) / Liege (2012) / Toulouse (2013) / Porto (2014) / Brest (2015) / Brussels (2016) / Lisbon (2017) / Bielefeld (2018) / Madrid (2019) / ----- (2020) / Online (2021) / Brussels (2022) / Madrid (2023) / Lisbon (2024).

I could not find information on the initial years venues, but probably they were in Brussels, the place of foundation of EURASC and that hosted the oldest registered symposia (2007 and 2008).

Distribution of participants by country and by main area

The theme of the current symposium, *Science for Sustainability*, aligned with the United Nations Sustainable Development Goals (SDGs), is of a broad interest to a diversity of international and national organizations, either of political or apolitical nature, the latter including Academies of Sciences.

It is gratifying to recognize that this Symposium convened representatives of many academies, as well as of universities, research centres and also of industry.

It gathered 146 registered *participants* in-presence (the number becomes higher with the attendees by videoconference), with a woman-to-man ratio of ca. 1:3.6, not yet at the desirable gender balance, representing 22 countries (counting individually the Chinese special administrative regions, in view of the relevance of their attendance) (Fig. 1).

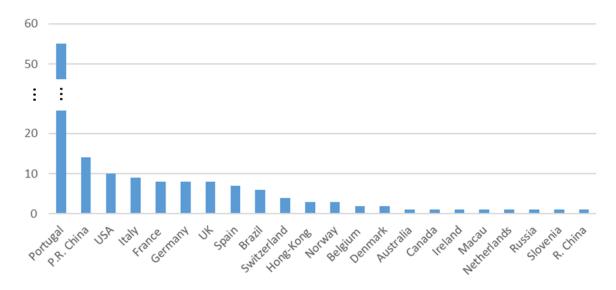


Fig.1 – Distribution of *participants* by country (counting individually the Chinese special administrative regions).

Following Portugal (55 delegates), P.R. China (18 with 3 from Hong-Kong and 1 from Macau) and USA (10), which are non-european countries, were the most represented ones, showing that EURASC is well recognized outside Europe, in Asia and America.

Those countries were followed by Italy (9 participants, with 2 jointly with Switzerland), France (8, with 1 jointly with Slovenia), Germany (8), UK (8), Spain (7), Brazil (6), Switzerland (4, with 2 jointly with Italy), Hong-Kong (3, included above in the P.R. China), Norway (3), Belgium (2) and Denmark (2), all with more than 1 participant. With 1 single representative, in alphabetical order: Australia, Canada, Ireland, Macau (included above in the P.R. China), Netherlands, Russia, Slovenia (with Italy) and Taiwan (Republic of China).

43 *lectures* were delivered, representing 16 countries (Fig. 2). Germany (5) appears after Portugal (10), followed by Spain (4), UK (4), P. R. China (3), Switzerland (3), USA (3), Brazil (2) and Italy (2), in this order, all with more than 1 lecture. Countries with 1 lecture were Belgium, Canada, Denmark, France, Netherlands, Republic of China (Taiwan) and Russia, ordered alphabetically.

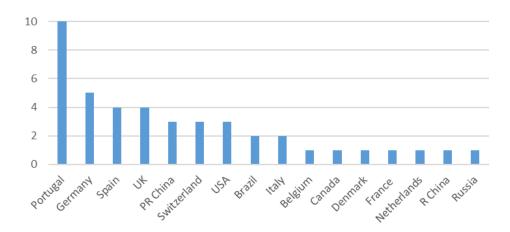


Fig. 2 – Distribution of *lectures* by country.

The Symposium congregated not only representatives of academic institutions but also of industry, aiming to foster the interaction between the academic and the industrial sectors (Fig. 3).

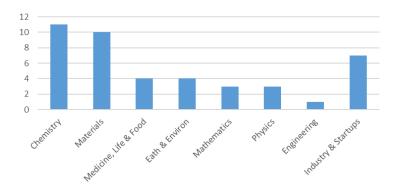


Fig. 3 – Distribution of *lectures* by main area.

From industry, a giant company in the world production of Li-ion batteries (Farasis, represented by its CEO, Dr. Yu Wang) and young startup companies participated, discussing (through their lectures and via a round table discussion) their approaches and strategies, a new idea at the EURASC Symposia.

The interaction of young and senior generations was thus promoted, what was also further assisted by poster presentations (31) by either senior (quite experienced researchers whose contributions could not be selected as oral in view of the tight program) or by promising young participants.

Almost all the posters were from Portugal but many of them had an international character. They were focused mainly in "Materials" and "Chemistry", with the significant exception of one of them that was addressed to social sciences.

The main scientific areas of the lectures were "Chemistry" and "Materials Science", followed by "Medicine, Health and Food Sciences" and by "Earth & Environmental Sciences", but often the lectures had an interdisciplinary character.

Sessions

The high number of lectures made the schedule of parallel sessions inevitable, although limited to the minimum possible. "Chemistry" and "Materials" were selected as the paralleled sciences since they were by far the most elected ones (Fig. 3), on account of achieving a more balanced program.

On the first day (October 29th), after the Opening session (with allocutions by the President of ACL, the Symposium Chair and the EURASC President, *i.e.*, Prof. José Luís Cardoso, myself and Prof. Rodrigo Martins, respectively), the thematic sessions followed the order according to the Program, starting with "Health & Food Sciences", then "Materials" (with the sub-areas of "Materials and Engineering towards Sustainable Energy" and "Intelligent Materials for Sustainable Technologies and Products"), "Chemistry and Biochemistry", "Earth & Environmental Sciences", "Physics" and "Mathematics". The session chairs, authors, titles and abstracts are indicated in the Program.

The 2nd day (October 30th) was initiated with the contributions from industry and startups, also according to the Program.

Moreover, the recognition of scientific merit constitutes an important endeavor of the Academy and the *prize awarding session* (chaired by the EURASC President and by the Vice-President Prof. Alain Tressaud), with delivery of the awardees lectures, was a relevant part of the Symposium, also comprehending the *welcome* to the new members.

The Blaise-Pascal Medal awardees presented their lectures but unfortunately, due to health reasons, the awardee of the Leonardo da Vinci Prize, Prof. Herbert Roesky, could not attend the symposium. Nevertheless, *in absentia* he was presented by the Head of the Chemistry Division, Prof. Pierre Braunstein.

Another honoring ceremony was addressed to the former Presidents and perpetual Secretary for their distinguished leadership, an initiative of the current EURASC President.

Visit to the ACL museum

The ACL museum opened its doors to the symposium attendees during extended periods of both days, comprehending the lunches and coffee breaks.

20th anniversary celebration

This particular Symposium also provided an opportunity to commemorate the 20th anniversary of the EURASC. A celebratory *Medal* was minted (Fig. 4) and the edition of a *Book*, as a multivolume set, inspired on the general theme of the symposium ("Science for Sustainability") is under way, to show the contributions of a diversity of sciences towards achieving a sustainable world. The publisher, World Scientific, is well recognized worldwide, publishing, *e.g.*, the Noble Prize Lectures.

The *deadline* for submission of the chapter manuscripts is the end of January 2025. For those of you who would like to contribute and have not yet expressed so, please let me know and send a provisional title of your chapter at your earliest convenience.



Fig. 4 – EURASC symposium 2024 and 20th anniversary celebratory medal.

Self-evaluation: SWOT analysis

The Symposium, upon completion, deserves a *self-evaluation* which can help in the organization of further EURASC Symposium editions. We have already received from the EURASC Secretariat a request for filling a template, and I am now leaving at your disposal the *SWOT* (Strengths, Weaknesses, Opportunities and Threats) analysis I have presented in the closing session.

As *Strengths*, in a brief way I perceive the following ones:

- Involvement of internationally recognized Academies;
- High scientific level;
- Multi-, inter- and transdisciplinarity, involving all the EURASC Divisions;
- Involvement of both academic and industrial sectors;

- Involvement of senior and young (startups, posters) generations;
- Merit recognition through awards, apart from careful selection of invited speakers;
- In-presence model (although exceptional videoconferences only when the speaker became prevented to attend for unavoidable reason);
- Minimum number of parallel sessions.

As Opportunities:

- Fostering Academies interactions (this is illustrated, e.g., by the involvement in the Symposium of both EURASC and the ACL, and by the signature (by the President of ACL and the President of the Brazilian Academy of Sciences, Prof. Helena Nader) of a protocol of cooperation between these Academies;
- Fostering collaborations (also with industry), interdisciplinary projects and networking;
- Welcome to new members;
- Celebration of the 20th anniversary.

As Weaknesses:

- Insufficient time (duration) to accommodate a long program;
- Not so high funding as desirable to support financially invited participants (although with generous sponsorship from industry, bank and turism sectors);
- Limited social program (no available time for excursions or visits outside the Academy);
- Limited administrative/management support (in spite of the high dedication and expertise of the EURASC and ACL staff involved);
- Dependence on a host institution (inevitable since EURASC does not have its own premises, although this difficulty was overcome by the generous disposal of the ACL facilities to the Symposium).

As Threats:

- Members ageing;
- Possible unavailability of members for bidding to organize future editions;
- External competition (e.g., by Academia Europaea);
- World (geo)political and financial unpredictability.

I leave this reflection to your attention and please feel free to comment and/or sending suggestions.

Acknowledgments

This Symposium was accomplished through the interaction of EURASC and the ACL, and I should acknowledge in particular, in the former Academy, its President, Vice-President and other members of the Presidium, as well as, in the latter Academy, its President and Vice-President, for their support, assistance, trust and making available their academies facilities.

Members of the organizing committees, Heads of EURASC Divisions, lecturers, poster presenters and session chairs, as well as EURASC and ACL staff members and, obviously, all of you for your participation and interest, are also gratefully acknowledged.

The Symposium benefited from various sponsorships, and I should acknowledge our Diamond, Gold and Silver sponsors, journal and institutional sponsors.

The names of the above are in the Program and I have also acknowledged them in the opening and closing sessions of the Symposium.

I hope you consider this Symposium as a rewarding event and enjoyed to attend it as much as I did in its organization.

November, 2024

With best regards,

Armando Pombeiro

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