

FINAL REPORT TERM 2019-2023



Term 2019-2023 Final statement

Turin, October 30th, 2023

Dear Members of the Italian Association for Wind Engineering,

in December 2019 the Steering Committee of the Association appointed me as ANIV President.

You can find below the summary of the activities carried out during the mandate. It will be your task to judge the obtained results, if any.

During the last four years, I attempted to serve ANIV at least at my best, not necessarily at the absolute very best, needless to say. In the effort to achieve the goal, I set myself to follow three main guidelines: i. permanently put ANIV in the top three of my personal to do list; ii. continuously act in between two successive meetings of the Steering Committee to implement the decisions of the previous one, and to prepare the debate within the following one; iii. listen more than talk during the above meetings.

My personal commitment would not be enough without the encouragement of the ANIV members, the collaboration of the colleagues of the Steering Committee, and the close support of Claudio Mannini (Secretary General) and Francesco Ricciardelli (Vice President up March 2023). I thank them both for the assistance, the intelligence, and the patience they had in me. I gratefully acknowledge the valuable spirit of service paid to ANIV by some young members: the past and present promoters of the group of young researchers ANIV-G (Cristoforo Demartino, Luca Patruno, Alessio Ricci, and Federico Canepa, Giulia Pomaranzi, Lorenzo Raffaele, respectively); the past and present web-communication managers (Federico Canepa, Giulia Pomaranzi, and Niccolò Barni, Vincenzo Picozzi, respectively). I believe ANIV is indebted with them for their fruitful and continuous commitment.

Second terms are often less enthusiastic and fruitful than the first ones. Past presidents very occasionally run the risk of being awkward presences. The viability of an Association is stimulated by new ideas and continuous renewing, especially if conceived and put in place by clever, generous and motivated members. In the light of the above, I declare in advance my unwillingness to a second term, and to be part of the next ANIV Steering Committee. Of course, it will be my full responsibility to ensure a smooth and effective handover with the future President.

In 2019 I run for office to return to the Italian wind engineering community the stimuli I received as researcher during my professional life, at least in small part. Four years later, at the end of the mandate, I must confess that I failed: once more, I got more than what I gave.

Fair winds to ANIV,

(Luca Bruno, ANIV past President)



Term 2019-2023 Synthetic summary of the activities

Number of members: from 100 members (2019) to 133 members (2023)

Functioning of the Association and its by-laws

- 1. Main amendments to the ANIV by-laws (https://www.aniv-iawe.org/association), in force since June 2022:
 - The Steering Committee can also take place by teleconference, in order to offer more flexible and quicker meeting opportunities in general and for members from abroad in particular;
 - The election of the components of the Steering Committee can take place online by means of secured and certified tools, in order to allow the members from abroad can easily cast their vote. Such a voting modality will be used first during the next elections (term 2023-2027);
 - New modalities to apply to the ANIV membership (https://www.aniv-iawe.org/join-us), with lower fares for non-academic Companies, young and student individual memberships.
- 2. 12 meetings of the ANIV Steering Committee took place during the term.

Relations with sister Wind Engineering Associations in Europe

- 3. WES-ANIV joint Evening Talks, supported by the Institute of Civil Engineers (ICE):
 - October 1st, 2020 "Good Practice for use of Experimental and Computational Methods for Wind Pressures on Structures and Facades" Speakers: A. Allsop (WES) "Derivation of Design Wind Pressures using Experimental Methods A history of good practice" and L. Bruno (ANIV) "CWE for design: instruction for use and side effects". Recording of the event at https://www.ice.org.uk/events/past-events-and-recordings/recorded-lectures/good-practice-for-use-of-experimental-and-computational-methods-for-wind-pressure
 - February 17th, 2022 "*Wind Storm Events: Their challenges and effects on structures*" Speakers: M. Sterling (WES) "Modelling wind storms what do we actually know?" and M.P. Repetto (ANIV) "Wind storms what can we measure on the field?"
 - October 11th, 2023 "Wind Engineering the unconventional: Challenges and lessons learnt" Speakers: A. Bagnara (WES) "Small structures, bespoke and novel designs the structural designer perspective versus the wind engineer perspective" and C. Mannini (ANIV) "Past and present unconventional structures: two wind tunnel studies". Recording of the event at https://www.ice.org.uk/events/past-events-and-recordings/recorded-lectures/wind-engineering-the-unconventional
- 4. May 2022: L. Bruno on behalf of the ANIV special interest group on Computational Wind Engineering ANIV-CWE (https://www.aniv-iawe.org/aniv-cwe) offered the



opening keynote lecture "Simulation numérique d'écoulements en ingégnerie du vent: modes d'emploi et dommages colatéraux" [CWE for Design: instruction for use and side effects] at the Thematic Day «Les usages de la simulation numérique (CFD) en Ingegnerie du Vent» organized by the French-speaking Wind Engineering Association [AIV – Association de l'Ingégnerie du Vent Belgique – France – Suisse] – Liège.

In-Vento Conference

- 5. Pre-events organized by the ANIV-G group (see section "generational renewal");
- 6. Solari Lectures (https://www.aniv-iawe.org/solari-lecture)

The Italian Association for Wind Engineering, under the umbrella of the International Association for Wind Engineering, aims at celebrating and renewing the longest lasting legacy of Giovanni Solari in innovating Wind Science and Engineering by excellent studies. The Solari Lectures are dedicated to emerging, innovative topics in and around the broad field of Wind Engineering, reviewed by excellent scholars. The lecture opens the ANIV biannual International Conference IN-VENTO.

- 2022: Gianluigi Rozza, "Reduced-Order Models in Wind Engineering: fundamentals and applications";
- 2024: to be announced soon.
- 7. IN-VENTO permanent web site (https://in-vento.org)
 - Online since June 2023;
 - Backend section and tools to manage participants' registration, submission of abstract and their review.
- 8. IN-VENTO editions:
 - Online one-day event IN-VENTO 2020 due to the Covid-19 contingencies, organized by Politecnico di Milano, chair A. Zasso;
 - IN-VENTO 2022, organized by Politecnico di Milano, chair A. Zasso;
 - Forthcoming IN-VENTO 2024, organized by Università di Pisa, co-chairs: M.V. Salvetti, A. Mariotti, G. Buresti.

Public dissemination

- 9. ANIV renewed web site (https://www.aniv-iawe.org)
 - Online since May 2020;
 - "News" page (https://www.aniv-iawe.org/news) managed by F. Canepa and V. Picozzi. 42 news published from ANIV, 38 news offered from members;
- 10. ANIV LinkedIn page (https://www.linkedin.com/company/aniv-iawe):
 - Online since June 2020, managed by G. Pomaranzi e N. Barni;
 - 80+ posts since May 2020, on average 2 posts per month. 40+ posts about news sent by ANIV members by means of the specific mail address news@aniv-iawe.org;
 - 1338 followers from all over the world, that is more than ten times the ANIV members
 - Impact of the last three posts:
 - "Wind Engineering the unconventional: Challenges and lessons learnt" (published on 9/28/2023): 4,301 visualizations, 8 reposts, 77 likes;
 - "Giovanni Solari Award for the best MSc Thesis" (published on 9/21/2023): 2,426 visualizations, 15 reposts, 144 likes;



- "ANIV-CWE about codification of CWE" (published on 9/14/2023): 4,538 visualizations, 14 repost, 54 likes, 20 comments, 1570 downloads;
- 11. ANIV YouTube channel (https://www.youtube.com/@aniv-iawe):
 - Online since July 2023
 - 21 subscribers, 160+ visualizations
 - playlist hosting the recording of the recent ANIG-G Live Talks;
 - playlist hosting the recording of the Solari Lectures;
- 12. Journal paper by the members of the ANIV special interest group on Computational Wind Engineering ANIV-CWE group
 - L. Bruno, N. Coste, C. Mannini, A. Mariotti, L. Patruno, P. Schito, G. Vario (2023) Codes and standards on computational wind engineering for structural design: State of art and recent trends, Special Issue "Codification of wind loading of structures" of *Wind and Structures* 37(2), pp. 133-151, doi: 10.12989/was.2023.37.2.133, available in Open Access.
- 13. BARC renewed web site (https://www.aniv-iawe.org/barc-home) and BARC webapp MYOC (https://www.aniv-iawe.org/barc-data). Online since May 2020;

Generational renewal

- 14. ANIV-G group (https://www.aniv-iawe.org/aniv-g)
 - Initially conceived by A. Zasso at the end of his term as ANIV president;
 - 40+ members: ANIV-G is not limited to ANIV members and no membership fees are required. ANIV-G is devoted to young researchers from industry and academy, from Italy and abroad;
 - Promoters: C. Demartino, L. Patruno, A. Ricci (2019-2022); F. Canepa, G. Pomaranzi, L. Raffaele (2022-present);
 - ANIV-G Live Talks seminars and workshops to introduce innovative research topics from different scientific communities, transversal competencies, and to promote dissemination of research funding opportunities:
 - October 29th, 2020 G. Buresti, "The fascinating challenges of bluff-body aerodynamics"
 - February 12th, 2021 T. Stathopoulos, "Seminar on Scientific and Technical Publishing"
 - June 25th, 2021 G. Haller, "Material barriers to the transport of momentum and vorticity in turbulence"
 - March 11th 2022 F. Lombardo, "Full-scale measurements of wind and wind loading: A renewed importance"
 - November 16th, 2022 G.J. O'Reilly, "ERIES research infrastructure network how to apply for transnational access grants"
 - June 27th, 2023 S. Rollino & D. Fiscaletti, "Boost your career with MSCA Postdoctoral Fellowships"
 - ANIV-G meetings biannual meetings to foster collaboration, exchange of ideas & outline next ANIV-G steps:
 - 2020, at Politecnico di Milano;
 - 2022, at Politecnico di Milano during In-Vento 2022;



- ANIV-G PhD session informal sessions specially dedicated to the dissemination of the research performed by young members who are completing their last year or just obtained their PhD
 - 2020, online event within In-Vento 2020
 - 2022, in person within In-Vento 2022

15. ANIV Award (https://www.aniv-iawe.org/award)

- Renewed format since 2020: talks of the shortlisted candidates during a special session of IN-VENTO conference, then winner announced;
- 2020: 7 candidates; 3 shortlisted (A. Giachetti, T. Massai, L. Raffaele); one winner (Lorenzo Raffaele, "Windblown sand action on civil structures: Definition and probabilistic modelling");
- 2022: 8 candidates; 3 shortlisted (N. Barni, F. Canepa, L. Roncallo); two ex aequo winners (Niccolò Barni, "*Time-variant self-excited force model based on 2D rational function approximation*" and Federico Canepa "*Vertical profile characteristics of thunderstorm outflows*").

Technology transfer

- 16. October 12th- 14th, 2022: Participation of ANIV at Eolica Mediterranean 2022 (Rome Exhibition Centre), the international wind energy conference and exhibition for Southern Europe and the Mediterranean. In particular, M. Belloli participated the panel discussion among the windpower trade associations from South Europe and Mediterranean Sea "A Mediterranean wide, wind powered energy community".
- 17. July 6th–7th, 2023: 6 hrs-long webinar given by L. Bruno, N. Coste and L. Patruno on behalf of the ANIV special interest Group for Computational Wind Engineering ANIV-CWE in the framework of the life-long training Courses organized by the Italian Council for Steel Constructions (CTA). Webinar titled "CWE for the design of steel structures". It was attended by 50+ designers.