



Promoting recognition and implementation of exposure science in Europe: First elements of a European Exposure Science Strategy 2020–2030

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1 Editorial

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3 **Promoting recognition and implementation of exposure science in Europe: First**
4 **elements of a European Exposure Science Strategy 2020–2030**

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18 Exposure science is one of the key disciplines needed to evaluate chemical and biological
19 risks as part of human and environmental health assessments, in support of a transition to
20 sustainable societies in Europe and worldwide. In an effort to identify the needs, challenges
21 and opportunities for advancing recognition, policy uptake and funding of exposure science
22 in Europe, the Europe Regional Chapter of the International Society of Exposure Science
23 (ISES Europe), newly-founded in 2017, started a bottom-up process to identify key priority
24 areas for a *European Exposure Science Strategy* [1]. By involving experts from occupational,
25 consumer, general population and environmental exposure assessment, this strategic effort is
26 based on a broad understanding of exposure scientists across the whole landscape and across
27 various sectors. This includes experts and stakeholders from academia, the private sector and
28 regulatory authorities, such as the European Chemicals Agency (ECHA), the European Food
29 Safety Authority (EFSA), and the European Commission's Joint Research Centre (JRC), as
30 well as international institutions, such as the United Nations Environment Programme (UN
31 Environment). Such cross-sector involvement assures a broad stakeholder support and
32 implementation of the different strategy elements and their proposed action plans.

33

34 Dedicated working groups were formed under the auspices of ISES Europe for the identified
35 key priority areas on education and terminology, policy uptake, exposure models, exposure
36 data and human biomonitoring [1]. These working groups reviewed the state-of-science,
37 discussed critical elements for advancing the field, and developed a concrete action plan for
38 each respective key priority area. In this ongoing process, ISES Europe acted as both a motor
39 and a catalyst for the dialogue between different sectors that in Europe are still separated by
40 regulatory silos and a lack of adequate knowledge exchange platforms around exposure
41 science [1].

42
43 The present Special Topic introduces the first elements as output of developing an
44 overarching European Exposure Science Strategy, and includes the finalized specific
45 strategies and proposed action plans for the two key priority areas on policy uptake [2] and
46 exposure models [3]. The Special Topic is complemented by a glossary on exposure-related
47 terminology as one of the corner stones of consolidating exposure science as a scientific field
48 [4]. Specific strategies and concrete action plans for all other key priority areas are currently
49 being finalized and will be published in scientific journals.

50
51 The role of ISES Europe in the ongoing development of the strategy shows the utmost
52 importance of scientific societies for promoting recognition and identity of a scientific field.
53 By furthering the identity of the field, scientific and political recognition will be achieved,
54 which is key to develop sustainable funding mechanisms for exposure science research and
55 development. Thus, the European Exposure Science Strategy will help to promote and
56 advance exposure science in Europe, and may serve as blueprint for establishing strategies on
57 exposure science worldwide, fully aligned with the global ambitions for a sustainable
58 development.

59
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62 chairs and working group members for their contributions to the European Exposure Science
63 Strategy.

64
65 **Data Availability Statement**

66 Not applicable

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69 **Author Contribution Statement**

70 NvG provided a first draft, PF and NvG finalized together

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72 **Conflict of interest**

73 The authors declare that they have no conflict of interest.

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