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9 August 2018
ENGLISH only

NOTE BY THE TECHNICAL SECRETARIAT**CALL FOR NOMINATIONS FOR A WORKSHOP ON GREEN
AND SUSTAINABLE CHEMISTRY: FOSTERING CHEMICAL
SAFETY AND SECURITY THROUGH INNOVATION
THE HAGUE, THE NETHERLANDS
4 – 5 DECEMBER 2018****Rationale and purpose of the workshop**

1. The OPCW Technical Secretariat (hereinafter “the Secretariat”) wishes to inform Member States that the Secretariat will hold a “Workshop on Green and Sustainable Chemistry: Fostering Chemical Safety and Security through Innovation” at OPCW Headquarters in The Hague, the Netherlands on 4 and 5 December 2018. The workshop is being organised as part of the programme of work under Article XI of the Chemical Weapons Convention (hereinafter “the Convention”).
2. Green and sustainable chemistry offers scientific and technological solutions for product and process design, whereby alternative chemical products and processes can be used to replace some unsustainable practices in the production and use of chemicals. Green chemistry is aimed at reducing the negative impact that chemicals, because of their toxic and other hazardous properties, can have on human health and the environment, at reducing process-related hazards and vulnerability, and at improving resource and economic efficiency. Green chemistry not only offers alternatives to existing unsustainable practices but also provides scientists and engineers, through its principles, with an innovative way of thinking when designing new products and processes. This is known as the “benign-by-design” approach, referring both to chemical reactions (processes or pathways) and formulations of chemical products.
3. The 12 principles of green chemistry¹ are closely linked with the United Nations Sustainable Development Goals.² Many of these principles refer to the reduction or elimination of the use of toxic chemicals. They include:

¹ For more information on the 12 principles see <https://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html>.

² For example, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has research support programmes for green chemistry initiatives (see <http://www.unesco.org/new/en/natural-sciences/science-technology/basic-sciences/chemistry/green-chemistry-for-life/>).



- (a) Principle 3 – Less Hazardous Chemical Syntheses: Wherever practicable, synthetic methods should be designed to use and generate substances that possess little or no toxicity to human health and the environment;
 - (b) Principle 4 – Designing Safer Chemicals: Chemical products should be designed to affect their desired function while minimizing their toxicity; and
 - (c) Principle 12 – Inherently Safer Chemistry for Accident Prevention: Substances and the form of a substance used in a chemical process should be chosen to minimize the potential for chemical accidents, including releases, explosions, and fires.
4. Green and sustainable chemistry has attracted great interest, especially in the chemistry segment of the science and technology community, but also in the private sector, because it promotes sustainable scientific thinking, public acceptance, and economic benefits in the medium to long term. It is an emerging and broad area that cross-cuts various scientific disciplines and their applications (a “convergence” of chemistry with other disciplines), and involves the competencies of a range of stakeholders with scientific, engineering, and academic backgrounds. Green and sustainable chemistry is now a topic of discussion on the agenda of many international organisations, including UNESCO, the United Nations Industrial Development Organization, the Organisation for Economic Cooperation and Development, the United Nations Economic Commission for Europe, the United Nations Environment Programme, and the International Union of Pure and Applied Chemistry.
 5. Green and sustainable chemistry is underpinned by principles aimed at protecting human health and the environment, which is also one of the ultimate goals of the Convention.³ It is also the core element of the Hague Ethical Guidelines, which state that “Achievements in the field of chemistry should be used to benefit humankind and protect the environment”. The OPCW Scientific Advisory Board (SAB) has also noted that green chemistry has relevance to the Convention.⁴
 6. At chemical safety and security needs assessment workshops and other integrated chemicals management events,⁵ less toxic substitutes for hazardous toxic chemicals have been frequently referred to as among the measures to enhance chemical safety and security. In this regard, green and sustainable chemistry has been pointed out as one of the ways to reduce risks connected with the use of such chemicals.
 7. In particular, the principles of green and sustainable chemistry that refer to the mitigating exposure to toxic chemicals align with the decision taken by the Conference of the States Parties at its Sixteenth Session entitled “Components of an Agreed Framework for the Full Implementation of Article XI” (C-16/DEC.10, dated

³ See paragraph 10 of Article IV, paragraph 11 of Article V, and paragraph 3 of Article VII of the Convention.

⁴ See paragraphs 6.13 to 6.16 of the report of the SAB at its Twenty-Second Session (SAB-22/1, dated 21 July 2015) and paragraph 18 of the comments of the Director-General on that report (EC-80/DG.7, dated 28 August 2015).

⁵ In Doha, Qatar on 7 and 8 December 2016; Jakarta, Indonesia from 20 to 22 March 2017; Shanghai, China from 29 August to 1 September 2017; and Santiago, Chile from 3 to 5 July 2018.

1 December 2011), which calls upon the Secretariat to “cooperate with and advise National Authorities with a view to finding non-toxic chemical substitutes to reduce the risks associated with toxic chemicals as well as to promoting activities from a health, safety, anti-terrorism, and general security point of view”.

8. Green and sustainable chemistry in relation to the OPCW mandate and objectives was first discussed at the “Expert Group Meeting on Green/Sustainable Chemistry Applications in Industries Involving Toxic Chemicals”, held on 15 April 2016 at OPCW Headquarters in The Hague. That was followed by the “Workshop on Green and Sustainable Chemistry in the Context of the Chemical Weapons Convention”, also at OPCW Headquarters, on 16 and 17 November 2017. These meetings were attended by representatives of National Authorities and world renowned experts from academia, science, the private sector, and international organisations, who shared views on the potential contribution of green and sustainable chemistry to promoting chemical safety and security and, hence, the objectives of the Convention.
9. The 2018 workshop is intended to follow up on the discussions during the meetings in 2016 and 2017, recognising the relevance of the principles of green and sustainable chemistry to the object of the Convention and to the current priorities of the work of the Secretariat, while following the spirit and letter of Article XI of the Convention, which calls for support of scientific research in the peaceful applications of chemistry. The 2018 event will aim to continue raising awareness on green and sustainable chemistry among a broad range of stakeholders, including scientists, industry, and OPCW Member States. It will focus on specific achievements in science and technology and on how the OPCW and stakeholders should cooperate to promote these developments for the benefits of the peaceful uses of chemistry, particularly chemical safety and security.

Objectives of the workshop

10. The objectives of the workshop are to:
 - (a) update stakeholders on emerging scientific advances and technologies in the field of green and sustainable chemistry, with a view to enhance chemical process safety and security by lowering the risks of exposure to toxic chemicals throughout the production and subsequent life cycle of chemicals;
 - (b) discuss case studies, needs, and outlooks for applied green and sustainable chemistry to enhance chemical industry safety and security;
 - (c) share and discuss OPCW-relevant initiatives, such as: surveying the available green and sustainable chemistry solutions to foster chemical safety and security; examining related educational and capacity-building initiatives; supporting related research; and networking in this area; and
 - (d) provide an opportunity to share information on relevant stakeholder initiatives and programmes to identify potential synergies and cooperation proposals.
11. The programme will specifically address the contributions of green and sustainable chemistry to chemical safety and security across the entire life cycle of chemical products. Based on the existing background, needs assessments, and expert opinions, there will also be a discussion on the link between green and sustainable chemistry

and specific elements of the Convention, or its object and purpose in a broader context, and the mandate of the OPCW. Group discussions will be used to focus on issues that include education, capacity building, support to research, and industry engagement.

12. The workshop will be conducted in English and no translation services will be provided. Participants should therefore have a command of this language.

Admission requirements and selection procedure

13. The workshop is open to representatives of:
 - (a) National Authorities and Permanent Representations of Member States to the OPCW;
 - (b) academia and research institutions from OPCW Member States that have world renowned expertise in the scientific research and education in green and sustainable chemistry;
 - (c) the private sector, including chemical industry and industry associations from OPCW Member States; and
 - (d) chemistry and science-related associations and non-governmental organisations, including academies of science and international organisations.
14. All applications must be endorsed by the National Authority or Permanent Representations of the Member States to the OPCW.
15. Member States are welcome to nominate both sponsored and non-sponsored participants who meet the admission requirements indicated in paragraph 13 above.
16. Applications from female candidates are especially encouraged.
17. The Secretariat will select sponsored participants based on their qualifications and experience. Only selected candidates will be notified by the Secretariat.

Sponsorship and travel arrangements

18. The Secretariat expects to be able to sponsor a limited number of participants for the workshop, including a maximum of 10 key speakers to be identified by the Secretariat.
19. For sponsored participants, the Secretariat will cover the costs of travel and medical insurance, and will provide a limited subsistence allowance to cover meals and sundry expenses. The Secretariat will also arrange and pay for the accommodation of sponsored participants. Sponsored participants who do not intend to use the accommodation arranged by the Secretariat are requested to indicate this as soon as possible, so that the Secretariat does not incur hotel cancellation fees. In any case, the Secretariat will not cover the costs of any accommodation that it has not arranged.
20. When making travel arrangement for sponsored participants, the Secretariat will seek the most economical options. The Secretariat will purchase tickets and send them to the participants. Participants will be allowed to purchase tickets locally only if this

leads to further savings for the Secretariat and if the Secretariat authorises it. Sponsored participants must bear all costs resulting from any changes they make once the Secretariat has purchased the tickets. Non-sponsored participants will be requested to make their own travel and accommodation arrangements, although the Secretariat can, if necessary, arrange accommodation. In order for the Secretariat to keep costs to a minimum, sponsored participants are expected to arrive no earlier than **Monday, 3 December 2018** and to depart no later than **Thursday, 6 December 2018**.

21. Participants are requested to obtain any necessary visas (including transit visas) before travelling to The Hague. The Secretariat will cover the costs of these visas by reimbursing sponsored participants upon production of original receipts.

Application procedure

22. Candidates are invited to fill out the application form in Annex 1 to this Note.
23. Applications that are incomplete or improperly filled out cannot be considered. Application forms must be accompanied by the following:
 - (a) a photocopy of the personal identification pages of the candidate's passport;
 - (b) an up-to-date curriculum vitae;
 - (c) a one-page statement of purpose;
 - (d) a one-page abstract of the proposed presentation at the workshop; and
 - (e) an endorsement from the National Authority of the candidate's country (Annex 2 to this Note).
24. Applications should be submitted to the Secretariat, via the respective Member State's National Authority or Permanent Representation to the OPCW, **no later than Friday, 19 October 2018**. Once the Permanent Representation has endorsed the application (Annex 2), it should then send it to the Director, International Cooperation and Assistance Division, OPCW, Johan de Wittlaan 32, 2517 JR The Hague, the Netherlands. Applications may also be sent by email attachment (icb@opcw.org), indicating "Green Chemistry Workshop 2018" in the subject line of the message.
25. Additional information may be obtained from Mr Sergey Zinoviev, Senior Programme Officer (Tel: +31 (0)70 416 3611; E-mail: icb@opcw.org).

Annexes:

- Annex 1: Application Form
Annex 2: National Authority Endorsement Form

Annex 1

**WORKSHOP ON GREEN AND SUSTAINABLE CHEMISTRY: FOSTERING
CHEMICAL SAFETY AND SECURITY THROUGH INNOVATION
THE HAGUE, THE NETHERLANDS
4 – 5 DECEMBER 2018**

APPLICATION FORM

Please submit the completed form by **19 October 2018** to:
The Director, International Cooperation and Assistance Division, OPCW
Johan de Wittlaan 32, 2517 JR The Hague, the Netherlands
E-mail: icb@opcw.org

Please type or use BLOCK LETTERS

Family name of nominee ⁶			
Gender	Male <input type="checkbox"/>	Female <input type="checkbox"/>	
First name(s) ⁶			
Date of birth	Day	Month	Year
Citizenship			
Passport number			
Date of issue	Day	Month	Year
Date of expiry	Day	Month	Year
Place of issue			
Areas of expertise (attach a curriculum vitae and a description of the candidate's practical experience)			
Employer			
Position			
Contact address (please do not give a post office box number)	Street		
	Number	Postcode	
	City		
	Country		
Email address			
Telephone numbers, including country and city codes	Home		
	Work		
	Mobile		
Fax numbers, including country and city codes	Home		
	Work		
Is sponsorship a condition of participation?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Do you require a visa to travel to the Netherlands	Yes <input type="checkbox"/>	No <input type="checkbox"/>	

⁶

Please give the first and family names exactly as they appear in the nominee's passport.

Annex 2**WORKSHOP ON GREEN AND SUSTAINABLE CHEMISTRY: FOSTERING
CHEMICAL SAFETY AND SECURITY THROUGH INNOVATION
THE HAGUE, THE NETHERLANDS
4 – 5 DECEMBER 2018****ENDORSEMENT BY THE NATIONAL AUTHORITY**

I, _____, Head/Chief Coordinator of the National Authority of the State Party of _____, on behalf of the Government of _____, hereby endorse the nomination of _____, holding the position/designation of _____ in the Office/Division/Branch of _____, as indicated in the attached nomination form, for participation in the “Workshop on Green and Sustainable Chemistry: Fostering Chemical Safety and Security Through Innovation”, to be held at the OPCW Headquarters in The Hague, the Netherlands, on 4 and 5 December 2018.

Signature: _____

Name: _____

Designation: _____

Official seal of the Organisation: