

# Memorandum of Understanding for the CERN WhiteHat Challenge

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This Memorandum of Understanding, dated \_\_\_\_\_, is between the European Organization for Nuclear Research (“CERN”), an intergovernmental organization having its seat in Geneva, Switzerland and \_\_\_\_\_ (“[•]”), located at \_\_\_\_\_ (each “a Party” and together, “the Parties”).

## **Whereas**

CERN has built and maintains extensive IT facilities and networks in order to pursue its mission of fundamental particle physics research;

CERN recognises the importance of robust and effective computer security for the successful operation of its IT infrastructure and protection from the threat posed to computer networks by malicious activities such as illegal hacking;

CERN opens its IT facilities to academic institutions which offer course in IT security to their students such that they can test and probe CERN’s IT facilities from the Internet in a benign and supervised manner;

In turn, such institution’s students can benefit from having the opportunity to gain relevant IT security learning in a practical manner;

The Parties, recognizing the mutual benefits available from working together as part of the CERN WhiteHat Challenge (the “Challenge”) shall now enter this Memorandum of Understanding (“MoU”) specifying, inter-alia, the nature of their collaborative relationship and their responsibilities with regard to the success of the Challenge;

IT IS HEREBY UNDERSTOOD AS FOLLOWS

## **1 Purpose**

- 1.1 This MoU establishes a common understanding between the Parties of the collaborative effort required for the execution of the Challenge. The results of their efforts shall be used for peaceful purposes only.

- 1.2 By signing this MoU, [●] shall become a Party in the Challenge, together with such other universities or institutions which CERN may choose to invite into the Challenge.
- 1.3 Each Party's involvement in the Challenge is on a best-efforts basis and the provisions of this MoU are not legally binding upon the Parties. This MoU does not imply any firm commitment of resources from either Party or any other institution that may also join the Challenge. Subject, and without prejudice to the provisions of this MoU, it is understood that each Party's involvement in the Challenge is governed, as the case may be, by its internal policies and regulations and by the laws to which it is subject.

## **2 Organisation**

- 2.1 The execution of the Challenge shall be managed by CERN acting through the CERN Computer Security Officer ("CSO") and, in his/her absence, by a person designated by her/him.
- 2.2 [●] shall nominate a member of its personnel working in the domain of cyber-security (the "Supervisor") to liaise with the CSO in the setting up and execution of its involvement in the Challenge and to represent it in all day-to-day matters and communications concerning this MoU.
- 2.3 The Supervisor will identify the type and scope of work that he/she wishes to carry out in accordance with this MoU; supervise the students from [●] that are participating in the Challenge (the "Participants"); and communicate to CERN, in advance of the start of any testing, the schedule, the IP subnet(s) from which their activities will be performed.
- 2.4 Involvement in the Challenge shall not constitute an employment relationship between CERN and the Supervisor, any other staff member at [●] who becomes involved in the Challenge, or any Participant.
- 2.5 CERN will offer no remuneration either for work done or information generated as a result of the Challenge.

## **3 Contributions by the Parties**

- 3.1 CERN will make visible to [●] numerous IT facilities via the Internet .
- 3.2 The Supervisor will provide sufficient supervision and guidance to the Participants to test and probe CERN's IT facilities in a benign manner.

## **4 Participation and Conduct**

- 4.1 In order to be eligible to be involved in the Challenge, Participants must:
- a. be officially affiliated with an institution that has signed a Memorandum of Understanding with CERN to be part of the Challenge; and
  - b. have the endorsement of the Supervisor;
- 4.2 Prior to their involvement in the Challenge, each Participant must first indicate their agreement to adhere to the ethical framework set out in Annex I (“the Code of Ethics”) by signing and returning to CERN a copy of said code. CERN will engage the assistance of the Supervisor in ensuring that this requirement is met in respect of each Participant.
- 4.3 In particular, the Code of Ethics requires Participants to keep confidential all information gained from and about CERN’s IT facilities as a consequence of their involvement in the Challenge and only to disclose it within the framework of the Challenge or where CERN has given its express written permission to the individual Participant to do so.
- 4.4 The Code of Ethics shall apply, and shall be observed at all times, by Participants during their involvement in the Challenge, and will, where applicable (e.g. obligations of confidentiality) continue to be observed by Participants beyond the conclusion of their involvement in the Challenge.
- 4.5 CERN reserves the right to cease a Participant’s participation in the Challenge where it has evidence or suspects that a Participant is, or has been, in breach of the Code of Ethics.
- 4.6 It is to be noted, and the Supervisor is to make clear to Participants, that the Code of Ethics does not permit or excuse criminal activity of any kind. CERN has a zero-tolerance approach to such activity, which is strictly prohibited in the execution of the Challenge. If [●], the Supervisor or any Participants consider, at any time, that executing the Challenge risks breaching applicable laws then they are to bring any such concerns to the attention of the Supervisor, who in turn will alert the CSO, and await guidance before proceeding with the Challenge. To this end [●] shall ensure that its participation in the Challenge complies with all applicable laws.

## **5 Results**

Once the Participants have completed their work, each Participant must:

- (i) accurately and fully report all their findings to the Supervisor, who in turn will transmit their findings to the CSO;

- (ii) ensure that any records which they retain in respect of their findings are kept confidential and, without further express permission from CERN, only make them available to their Supervisor and fellow Participants from [•] who are also participating in the Challenge.
- (iii) seek CERN's approval in the event that they wish to publish or make public their findings (e.g. for inclusion in academic theses, papers or presentations).

## **6 Liability**

- 6.1 Each Party shall bear its own loss and damage in connection with its participation in the Challenge.
- 6.2 Furthermore, the Parties shall hold each other free and harmless from, and indemnify each other for, any loss, damage or injury suffered by them as a result of its gross negligence or willful misconduct, or resulting from the execution of its contribution to the Challenge.
- 6.3 Each Party's liability under Article 6.2 shall not extend to claims for indirect or consequential loss, damage or injury, including but not limited to loss of profit, revenue or contracts.

## **7 Contact Details**

- 7.1. The contact details for the CSO are as follows:

Dr. Stefan Lüders, P.O. Box G24010, CH-1211 Geneva 23

- 7.2. The contact details for the Supervisor are as follows:

[•]

## **8. Duration and Termination**

- 8.1. This MoU shall remain in force for as long as required to give effect to its provisions.
- 8.2. CERN reserves the right to terminate the Challenge at any time and for any reason.
- 8.3. In recognition of the fact that this MoU does not imply a firm commitment of resources, a Party may withdraw from this MoU by giving reasonable written notice to CERN, it being understood that the MoU's provisions shall

continue to apply to such a Party in so far and for as long as required in relation to its participation in the Challenge prior to its withdrawal.

## 9. Arbitration

- 9.1. If a dispute within the framework of the Challenge or between the Parties cannot be resolved amicably, it shall be referred by either Party for binding arbitration.

Signed by the authorized representatives of:

**The European Organization for  
Nuclear Research**

[•]

\_\_\_\_\_  
[Name]

\_\_\_\_\_  
[Name]

\_\_\_\_\_  
[Date]

\_\_\_\_\_  
[Date]

# CERN WhiteHat Challenge

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## Code of Ethics

1. **Application:** This Code of Ethics shall apply, and shall be observed at all times, by all Participants during their involvement in the CERN WhiteHat Challenge (“the Challenge”).
2. **Participation:** Only persons who are (i) officially affiliated with an institution that has signed a Memorandum of Understanding with CERN to be involved in the Challenge, and (ii) who have the endorsement of a Supervisor connected with that institution (who is working in the domain of cyber-security, and who is recognised by CERN) may become Participants in the Challenge.
3. **Conduct:** Participants shall conduct themselves in the most ethical and competent manner and display integrity at all times in connection with their participation in the Challenge. In particular, in the course of their involvement in the Challenge, Participants must:
  - a. take all necessary care to ensure the ethical conduct and high standard of care required to participate in the Challenge;
  - b. only use the property of CERN in ways that have been authorised by CERN and with CERN’s knowledge and consent;
  - c. ensure that they do not violate any national regulations, regulations of the institution with which they are affiliated or their Internet Service Provider (“ISP”), nor engage in deceptive practices such as bribery, blackmail or improper financial practices in connection with the Challenge. If a Participant has doubts about the legality of their work they are to cease their activities immediately and raise the issue with their Supervisor;
  - d. ensure that, during their participation in the Challenge, network traffic is kept minimal and does not impact on the overall stability of the network that they are using or their ISP;
  - e. take care to ensure that network equipment, computing services or web applications, hosted at CERN, by an intermediate ISP or by their institution, are not compromised, prevented from working, modified, subject to a denial of service attack or rendered broken; and
  - f. take utmost care not alter or delete any webpage, account, data, or other any information hosted at CERN or elsewhere.

4. **Scope:** For the purposes of participating in the Challenge, Participants shall only investigate CERN's IT facilities and networks connected to the CERN network domain (i.e. "cern.ch" and belonging to the 137.138.0.0/16 or 128.142.0.0/16 class-B subnets);
5. **Disclosure:** Participants shall disclose all their findings resulting from their involvement in the Challenge to their supervisor and to CERN where they believe the data indicates a security weakness in CERN's IT facilities, either existing or potential.
6. **Confidentiality:** All information gained from and about CERN's IT facilities by Participants as a consequence of their involvement in the Challenge is to be regarded as confidential and treated as such. Participants may not make any copies of, or store, any CERN data that they discover as part of their activities in the Challenge. Participants agree that, at the end of their involvement in the Challenge, they will erase all CERN data that they have collected during the Challenge. Participants agree not to give, sell or transfer any such information to any entity other than CERN without CERN's prior written consent.
7. **Conflicts of Interest:** Participants shall disclose to CERN and their Supervisor any conflicts of interest they may have that will arise, or could be considered to arise, from their participation in the Challenge.
8. **Unauthorised usage:** In the course of the Challenge, Participants shall never knowingly use software or processes that have been obtained or retained either illegally or unethically.
9. **Malicious activities:** Participants shall not associate with malicious attackers or underground communities, nor engage in malicious activities as part of the Challenge. Only CERN's infrastructure should be investigated in the Challenge and only for the purpose of exposing, rather than exploiting, weaknesses.