Subject: **Horizon 2020 Framework Programme**
Grant Agreement: – 830892 SPARTA
Amendment request

Dear Madam/Sir,

In connection with the above-mentioned Grant Agreement, on behalf of the consortium we request an amendment to the GA.
It concerns the following changes:
1. Change of Annex 1 (description of the action)
2. Change of Annex 2 (redistribution of budget within the action)

These change(s) are necessary for the following reason(s):

The consortium continuously monitored and evaluated the progress of the project activities. Due to the current COVID-19 pandemic situation on one hand and to necessary adjustments made during the execution on the other hand, the project requires some modifications to the work plan and an extension of 5 months. The project will end at M41 (instead of M36) thereby reach its objectives.

In addition to the extension driven by operational constraints, SPARTA will maintain its leadership and interaction with the other pilots to satisfy the requirements of the complimentary grant while aiming at making these activities sustainable.

Arguments / Justifications for the requested changes of the DoA.

1) **Extension**
   During the second project period our work was disrupted. We were not able to work as planned. Due to COVID-19 crisis, facilities were temporarily closed and the Project Partners had only limited or no access to the labs/facilities. Physical meetings and travels were also strongly restricted; in particular, in the context of a European collaborative action where the outbreak dynamics were different and moving across countries was difficult. After monitoring and evaluating the situation and the progress made, the consortium would like to ask for changes to the project plan and an extension of 5 months for the project. Only a subset of the running tasks has been impacted to an extent requiring an extension; we have detailed the situation below and have been careful not to ask extensions longer than required at the task and deliverable level (which is why less than 5 months are requested for some tasks and deliverables).

- **WP1** (Governance)
   Reason of extension request: The liaison activities with SC6-GOVERNANCE projects have been delayed to wait for more opportunities to have physical meeting and organize a workshop under T1.1. with inputs and insights being transferred to T1.2 and T1.3 for contextualization and processing in the SPARTA context in D1.5. An additional workshop is also planned with WP6 aiming to assess different innovation governance models implemented by all SPARTA programs. The assessment part of the activity (T1.4) has to be aligned with the end of the previous tasks (and

should last one additional month to be in capacity to take into account their material in D1.6 as learnt from the experience with D1.4).

Work remaining to be done: Contact with SC6-GOVERNANCE projects selected on their relevance to SPARTA purposes, finalize job descriptions of Activities and Programs leaders, and integrate those latest developments in the assessment.

Measures to perform work: Needed efforts will be targeted towards the remaining work to be done, internal workshop related to governance of technical programs, organization of a workshop dedicated to SC6-GOVERNANCE aspects with an online backup plan.

- o Extend WP1 from M36 to M41
- o Extend Task 1.1, Task 1.2 and Task 1.3 from M36 to M40
- o Extend Task 1.4 from M36 to M41
- o Shift D1.5 from M36 to M40
- o Shift D1.6 from M36 to M41

- **WP2** (Responsibility)

Reason of extension request: T2.4, initially relying on face-to-face interactions with the technical programs, has strongly suffered from the Covid outbreak. In addition to this, the WP aimed at partially realigning the activities performed to better take into account the feedback received from external reviewers to make its outputs more mainstream and sustainable in the context of the creation of the ECCC. As a consequence, D2.5 has been delayed. D2.6 is a deliverable aimed at encompassing all previous deliverables in the work package and should be aligned with D2.5 as well.

Work remaining to be done: Task 2.4 will be realigned to reflect the fact that the SPARTA programs have already ended and joint work on specific development outcomes is no longer possible. Instead of a physical or virtual workshop approach, which is not effective during the ongoing Covid pandemic, information is gathered through direct exchange with the leaders of the SPARTA programmes and activities, as well as selected other project partners (in the form of interviews or, if suitable, a questionnaire). Instead of supporting the SPARTA programs to make their concrete developments more ELSA compliant, we will focus more on a general ELSA cybersecurity assessment scheme that can be used by future development projects, and especially by decision-makers in the emerging European cybersecurity institutions (ECCC, NCCCs) when designing future activities.

Measures to perform work: Organization of interviews and/or questionnaires, needed efforts will be targeted towards the remaining work to be done.

- o Extend WP2 from M36 to M41
- o Extend Task 2.3 and Task 2.4 from M36 to M41
- o Shift D2.5 and D2.6 from M36 to M41

- **WP3** (Roadmap)

Reason of extension request: The roadmap work is a collaborative activity and has dependencies on other activities and in particular the Technical Programs, which has been slowed down by the outbreak situation, impacting D3.4 for which 1 additional month will be necessary to fully collect the inputs coming from HAII-T. In top of this, D3.5 is a "lessons learnt" deliverable which should be built on the past deliverables and would benefit from being positioned one month after the submission of D3.4.

Work remaining to be done: Update challenge coming from the HAII-T Program, addition of an emerging challenge on HW/SW interface.

Measures to perform work: Needed efforts will be targeted towards the remaining work to be done.

- o Extend WP3 from M36 to M38
- o Extend Task 3.3, Task 3.4, and Task 3.5 from M36 to M37
- o Extend Task 3.6 from M36 to M38
- o Shift D3.4 from M36 to M37
- o Shift D3.5 from M36 to M38

- **WP4** (T-SHARK Program)

Reason of extension request: T-SHARK has a large number of technical demonstrations relying on various tools, approaches, methods, skills, and procedures to be integrated into a final solution for threat intelligence (D4.3) and prediction (D4.4). The Covid-19 related restrictions prevented travels and physical meetings, which slowed down this activity.

Work remaining to be done: Finalization of integration of demonstrators approaches, methods, and deliverable edition.

Measures to perform work: Needed efforts will be targeted towards the remaining work to be done.

- o Extend WP4 from M36 to M38
- o Extend Task 4.1, Task 4.3, Task 4.4 and Task 4.6 from M36 to M38
- o Shift D4.3 and D4.4 from M36 to M38

- **WP8** (Partnership)

Reason of extension request: The JCCI (T8.1) is, by design, distributed in its technical operation, this requires extensive collaboration between different parties and, in turn, has suffered from the outbreak. Due to periods of waiting to see whether the Covid situation would improve, SPARTA Day events (T8.2) have been postponed and there remains one such event to organize before the end of the project and after the one scheduled in January 2022 (M36), thus needing to align T8.2 on the longest duration requested for other tasks and WPs. As a complimentary grant, T8.3 would also be extended until the end of the project to allow further interactions with the other pilots (in particular through the EC/4P meetings and the inter-pilot focus groups in the domains of Governance, Roadmap, Education, Exploitation, and Communication).

Work remaining to be done: One SPARTA Day event during the extension period and finalization of deliverable and JCCI latest features description, thematic workshop on data sovereignty.

Measures to perform work: Connect JCCI nodes, SPARTA Day event needed efforts will be targeted towards the remaining work to be done.

- o Extend WP8 from M36 to M41
- o Extend Task 8.1 from M36 to M38
- o Extend Task 8.2 and Task 8.3 from M36 to M41
- o Shift D8.3 from M36 to M41

- **WP10** (Exploitation)

Reason of extension request: This activity supports in particular the Programs and their outputs. It should thus be aligned with the last Program remaining which is T-SHARK (WP4) and will thus

have T10.1 running one month more than M38 to ensure the update of the Data Management Plan. In addition, T10.3 will be extended to be running during the SPARTA Day event (M41) in order to be able to organize a second start-up hackathon to address the weakness on the results related to KPI 7.3 about start-up creation.

Work remaining to be done: DMP final update, mitigation of exploitation results related to start-up creation.

Measures to perform work: A hackathon and needed efforts will be targeted towards the remaining work to be done.

- o Extend WP10 from M36 to M41
- o Extend Task 10.1 from M36 to M39
- o Extend Task 10.3 from M36 to M41
- o Shift D10.5 from M36 to M41
- o Shift D10.6 from M36 to M39

- **WP11** (Certification)

  Reason of extension request: Interactions with national authorities tend to be of a formal nature and take longer than expected initially, in particular with regards to disclosure of sensitive information, which will produce a delay estimated to 2 months in T11.2 to produce D11.4.

  Work remaining to be done: Integration of feedback from national authority.

  Measures to perform work: Needed efforts will be targeted towards the remaining work to be done.

  - o Extend WP11 from M36 to M38
  - o Extend Task 11.2 from M36 to M38
  - o Shift D11.4 from M36 to M38

- **WP12** (Communication)

  Reason of extension request: This activity has been strongly hit by the outbreak, inducing delays for some of the events and demonstrations expected; this is also a transversal activity which is essential for the impact of the outcomes, leading to a request for an extension until the end of the project.

  Work remaining to be done: Coverage of the M41 SPARTA Day event, technical Programs communication and dissemination (and in particular a CINI demonstration).

  Measures to perform work: SPARTA Day event, needed efforts will be targeted towards the remaining work to be done, maintenance of the communication infrastructure.

  - o Extend WP12 from M36 to M41
  - o Extend Task 12.1, Task 12.2 and Task 12.3 from M36 to M41
  - o Shift D12.5 from M36 to M41

- **WP13** (Management)

  Reason of extension request: Management activities have to continue until the end of the project, thus aligning on M41.

  Work remaining to be done: Continuous project, risk, and innovation management.

  Measures to perform work: Needed efforts will be targeted towards the remaining to be done.

  - o Extend WP1 from M36 to M41
  - o Extend Task 13.1, Task 13.2 and Task 13.3 from M36 to M41

- o Add Deliverable 13.4 "Report on cumulative expenditure (December 31, 2021)" (R, CO) due by M36

- **WP14** (Ethics)
  Reason of extension request: This is a generic work package which has a duration equal to the project.
  Work remaining to be done: DU, H, and POPD monitoring.
  Measures to perform work: Needed efforts will be targeted towards the remaining to be done.
  - o Extend WP14 from M36 to M41

- **Milestones**
  - o Shift MS8 from M36 to M38
  - o Shift MS7, MS9 and MS10 from M36 to M41

2) **Adjustments**
   The adjustments presented here reflect changes triggered after the launch of the project.

- **WP6** (HAII-T Program)
  Summary: Shift UTARTU efforts from T6.3 to T6.5 and extend Task 6.5 to M36 instead of ending in M24.
  Motivation: UTARTU contribution to the HAII Toolkit is mostly about checking the correctness of business processes in terms of compliance against data management directives (in particular GDPR). Although business process review has an important role in the orchestration and life-cycle of Intelligent Infrastructures, it is also crucial in terms of privacy. For this reason, moving the effort of UTARTU under T6.5 is coherent with WP6 activities and better characterizes the work. The main reason for the extension of T6.5 are expected bigger technical realizations of 2 demonstration technologies in D6.3 (First release of Demonstration,) and then their extensions for D6.4 (Final release of Demonstration), finished at M36. Furthermore, the involved partners (IMT, BUT, UTARTU, INRIA, LIST, UNAMUR) in T6.5 would like to continue on the current common use case – smart parking scenario. It is also planned to continue with cooperation with Responsible Innovation in WP2 (UNAMUR, TARTU). This will be reflected in participation in D6.4.
  Non-regression: T6.3 will not suffer from this reorganization as UTARTU will also contribute to the orchestration framework with their technology. The other partners confirmed that they will have enough PMs for activities of extended T6.5 in Y3. They will be using the leftovers PMs from T6.5 during M01-M24 according to the initial plan of WP6 efforts.
  - o Extend Task 6.5 from M24 to M36

- **WP11** (Certification)
  Summary: Task 11.1 is planned from M1 to M36 but the corresponding deliverable D11.1 is planned for M12. An additional deliverable corresponding to an update of deliverable D11.1 at M36 will allow to report on work done during the period M12-M36.
  Motivation: Work is planned to continue on monitoring the evolution of the cyber certification landscape, the progress in the EU cybersecurity certification framework and collaborating with the SPARTA research programs and there is a need to report about it.

Non-regression: This fixes an inconsistency from the proposal and does not remove any work planned.
  - o Add new deliverable "D11.5: International and national cybersecurity certification initiatives – Updates" at M36

- **CEA** (Adjustment of PM costs)
  Summary: Decrease in average PM cost increasing PMs by 28.
  Motivation: Changes are motivated by the fact the persons involved in SPARTA have been more junior than initially planned, partly due to organizational evolutions during the project execution, and partly due to the low seniority of hired temporary staff. This happened in particular in technical activities (WP5, WP7) and in management activities (WP13) with junior hires as well as for communication activities (WP12) - leading to increase in PMs in those work packages.
  Non-regression: These changes are implemented in close collaboration with WP leaders and are smoothly integrated in the collaborative work performed, under guidance of more senior staff as needed. No change in the perimeter of activities.
  - o Increase of the efforts of CEA by 28 PMs as shown in the table below.

WP	Former Person Months	New Person Months
1	36	36
2	3	3
3	3	3
5	21	28
7	6	13
8	6	6
11	6	6
12	9	12
13	23	34
14	0	0
TOTAL	**113**	**141**

- **BUT** (Adjustment of PM costs)
  Summary: Decrease in average PM cost increasing PMs by 2 in favour of WP9.
  Motivation: The change will allow the participation of junior researchers and PhD students which will be involved in the software development of practical demonstration tools for designing higher-education study curricula. The main results of the WP9, in particular the SPARTA Cybersecurity Skills Framework and Good-Practice Curricula, will be better disseminated.
  Non-regression: The increase of BUTs PMs in WP9 from 18 to 20 (11% increase) reflects the actual nature of activities within WP9 which involve software development, that could be realized by junior developers with lower PM rates, under the guidance of senior staff. By this approach, the extent and quality of the results remains unaffected and, at the same time, new demonstrators (software applications) with practical impact could be delivered. The total budget of BUT remains

the same, as more PMs are compensated by lower average rates of BUT caused by the involvement of junior developers.

  o Increase of the efforts of BUT by 2 PMs as shown in the table below.

BUT WP	Former Person Months	New Person Months
1	6	6
2	3	3
3	2	2
6	24	24
9	18	20
12	2	2
13	1.5	1.5
TOTAL	56.5	58.5

- **Fraunhofer** (Shift from other costs to PMs)

  Summary: Shift of 30.9 k€ of other direct costs to 3.8 PMs.

  Motivation: Due to the current limitations in travelling because of the pandemic situation, we do not expect to require all the amount that has been granted for this concept. On the other hand, the efforts spent so far in the different tasks and the objectives pending to be achieved by Fraunhofer led to increase in the PMs spent. In particular, in WP1 Fraunhofer invested more resources than originally foreseen as additional activities were necessary for the definition, monitoring and evaluation of the external evaluation study. Moreover, extra work was done and will be done in the Inter-pilot Governance Working Group.

  Non-regression: The perimeter of the work to be performed is not reduced by those changes.

  o Shift 30.9 k€ of other direct costs to increase PMs by 3.8 as shown in table below.

WP	Former Person Months	New Person Months
1	15	18.8
2	18	18
3	2	2
12	2	2
TOTAL	37	40,8

- **TEC** (Shift from other costs to PMs and redistribution of PMs)

  Summary: Shift of 6.45 k€ to 1.5 PMs and redistribution of PMs

  Motivation: Due to the current limitations in travelling because of the pandemic situation, TEC do not expect to require all the amount that has been granted for travels, 6.45k€ of this amount would be shifted to personnel costs (equivalent to 1.5 PMs) towards WP5. Also, considering the

efforts spent in the different tasks and the objectives pending to be achieved by TEC, these are some changes in the distribution of PMs which are requested:

- <u>WP3</u>: Taking into account the amount of effort spent on the delivery of the first three iterations of the SPARTA Roadmap, the effort to be spent on the fourth iteration (D3.4) will be similar, leading to a decrease by 1 PM in this WP.
- <u>WP5</u>: Both the design and implementation of Vertical 1 use case (with 3 scenarios and demos) and the coordination of the D5.2 deliverable have been very effort consuming tasks where the initial objectives have been surpassed. At this point, there is a need to strengthen WP5 by moving some PMs from other WPs in order to complete the validation activities of Vertical 1. Therefore, an increase of 5 PM is proposed in this WP.
- <u>WP7</u>: The participation of TEC in T7.5 will be focused on validating TEC´s tool from T7.1 (AI Threat Knowledge Base), since TEC does not participate in T7.2, T7.3, and T7.4, but the resources required will be less than initially planned. A decrease of 3 PM in this WP would reflect this.
- <u>WP8</u>: More efforts than initially planned in this WP will be spent, mainly due to the involvement in the implementation of the JCCI infrastructure and the leadership in the creation of the Spanish cyber community that joins partners from the four CCN pilots. An increase of 0.5 PM in this WP is requested.

<u>*Non-regression:*</u> The perimeter of the work to be performed is not reduced by those changes.

- o Shift 6.45 k€ of travel budget (direct cost) to 1.5PMs for WP5
- o Redistribute some effort amongst WPs. The following table shows a summary of the proposed changes (including the 1.5PMs mentioned in the previous item):

TEC WP	Former Person Months	New Person Months
3	2	1
5	16	21
7	14	11
8	3	3.5
12	2	2
TOTAL	37	38.5

- **Inria** (Removal of Third Party)
  <u>*Summary:*</u> Removal of INSA Lyon as a Third Party from Inria.
  <u>*Motivation:*</u> No personnel cost will eventually be declared by INSA Lyon.
  <u>*Non-regression:*</u> No personnel cost nor efforts have had been allocated at the beginning for INSA Lyon. The same technical perimeter will be ensured by INRIA and all work declared as INRIA (except for the other third-party CS).
  - o Removal of INSA Lyon as a Third Party from Inria

- **SMILE** (Redistribution of PMs)
  <u>*Summary:*</u> Redistribution of PMs

Motivation: Considering the efforts spent so far in the different tasks and the objectives pending to be achieved by SMILE, some changes are requested in the distribution of PMs:

- WP3: Taking into account the amount of effort spent on the delivery of the first three iterations of the SPARTA Roadmap, the effort to be spent on the fourth iteration (D3.4) will be similar, leading to a decrease by 1 PM in this WP.
- WP8: The development of the RAMP platform was mainly conducted under the WP8 and was a very effort consuming tasks where the initial objectives have been surpassed. At this point, some PMs need to be moved from WP3 to WP8 in order to meet the actual PMs spent this WP which is more than was initially allocated and would result in 1 additional PM for WP8.
- WP9: The need of effort for activities in the WP9 were overestimated and can be decreased by 3PM.
- WP10: As a WP leader, more efforts than initially planned in this WP will be spent, mainly due to complex and volatile nature of exploitation strategies; more time-consuming activities within the WP10 exploitation plan are also foreseen. An increase of 3 PM in this WP would be adapted.

Non-regression: The perimeter of the work to be performed is not reduced by those changes.

o Redistribute some effort amongst WPs as shown in the following table:

SMILE WP	Former Person Months	New Person Months
1	3	3
2	3	3
3	2	1
4	6	6
8	6	7
9	9	6
10	18	21
12	2	2
13	1.5	1.5
TOTAL	50.5	50,5

- **SAP/NIC** (Redistribution of PMs and transfer of budget to other partner)

  Summary: Redistribution of PMs and transfer of 1.5PMs to NIC

  Motivation: Efforts to be spent in WP3 and WP10 have been overestimated and can be reduced by 1PM and 5PM to increase the effort in WP5 which showed stronger needs than initially planned. Activities in WP9 can also be addressed by reducing the effort of SAP by 5.5PM from which 1.5 PM is transferred to NIC which will take over SAP duties related to training curricula creation and awareness activities related to the industrial sector, with a particular focus on the continuous training of employees and ICT professionals.

  Non-regression: The perimeter of the work to be performed is not reduced by those changes (in particular, NIC takes over some SAP duties to ensure WP9 is not impacted).

  o Reduction of effort of SAP from 46 PMs to 40.5 PMs as shown in the table below.

o Increase of the efforts of NIC from 10 PMs to 11.5 PMs as shown in the table below.

SAP WP	Former Person Months	New Person Months
3	2	1
5	24	30
9	6	0,5
10	6	1
11	6	6
12	2	2
TOTAL	46	40,5

NIC WP	Former Person Months	New Person Months
3	1	1
4	8	8
9	/	1,5
12	1	1
TOTAL	10	11,5

- **SAP/INOV** (Transfer of budget to other partners and shift from other costs to PMs)
  Summary: Transfer of 6 PMs to INOV and shift of 29.7k€ of other costs to 5 PMs for INOV
  Motivation: From the 5.5 PMs offered by SAP (see previous item), INOV will be given 6 PMs (at INOV's rate, which is smaller). This transfer associated to the shift of 6 PMs coming from other costs will allow to cover part of the extra work done under CCN Comm Group and Tasks 12.2 and 12.3.
  Non-regression: No change in the perimeter of activities; due to the pandemic situation, we expect less travel. Part of the budget for "Other goods and services" was initially allocated to dissemination material production expenses. We decided not to subcontract those as the work has been done internally so far (e.g. videos, layouts).
  - o Increase of the efforts of INOV from 70 PMs to 81 PMs as shown in the table below.
  - o Reduce travel (12.2k€) and other goods and services (17,5k€) budget of INOV.

INOV WP	Former Person Months	New Person Months
1	6	6
2	12	12
3	3	3

4	18	18
8	6	8
12	24	33
13	1	1
TOTAL	**70**	**81**

The length of the extension requested will allow SPARTA to fully perform its technical dissemination activities on one hand and the finalization of the supporting transversal activities on the other hand. This will be made while aiming at spreading the lessons learnt through the journey to the inter-pilot groups and with EU bodies in the context of the ECCC creation.

Assurances from the project about the expected impact from the extension

This extension will provide the opportunity to improve the work already done about dissemination and provide more opportunity to have physical events as the situation allows. All events (Hackathon, SPARTA Day, and meetings) will be prepared with a hybrid or online backup plan to avoid any further delays in the finalization of the deliverables.

In order to prepare this request, a check of the efforts remaining in the consortium has been performed with the partners.

Given the explanations above and the updated work plan, the consortium hereby requests to change the DoA. The main objectives of the project remain unchanged and the target objectives in the DoA are still valid.

The request is accompanied by the following supporting document(s):
    Annex 1