**Spontaneous NIAG High Level Advice (HLA) Study on**

***COVID-19: Address Disruption and Build Resilience in the Defence Technological and Industrial Bases of the NATO Member and Partner Countries***

**Questionnaire/ Survey on Transatlantic Defence Industry Preparedness, Resilience and Response to the COVID-19 Crisis**

**GUIDELINES FOR COMPLETING THE QUESTIONNAIRE**

* This questionnaire is mainly addressed to defence-related industries based in the NATO and NATO Partner countries. The section “Optional” can be used to provide additional details.
* Responses from defence industry associations and industries active in civilian sectors are also considered provided that these categories are clearly identified as such (name of organisation and address of headquarters). Questions that cannot be answered by these two categories of respondents should be marked as N/A (“non-applicable”) at the section “Optional”, and further explanations can be provided.
* At least one choice and maximum three choices should be provided to the questions that have multiple choices. More indications regarding the maximum number of choices allowed is available under each question.

**PRIVACY CONSIDERATIONS**

* Data collected will be anonymised and aggregated.
* The names of respondents/ organisations, when disclosed, will be kept confidential and will only be used for statistical purposes.

**THE COMPLETED QUESTIONNAIRE SHOULD BE SENT TO THE STUDY MANAGEMENT TEAM AT THE FOLLOWING EMAIL ADDRESSES:**

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* Dr. Alessandro Garibbo (Rapporteur) : alessandro.garibbo@leonardocompany.com
1. **IMPACT OF THE COVID-19 CRISIS ON COMPANY’S BUSINESS CONTINUITY AND MEASURES TO MITIGATE ITS CONSEQUENCES**

**A.1. SAFETY**

*This topic deals with every aspect related to the safety of personnel at industry level, including customer, suppliers and subcontractors.*

*It encompasses how to ensure safety of the personnel and continuity of production lines of businesses and of their suppliers [including Small and Medium-Sized Enterprises (SMEs)].*

1. **Prior to the COVID-19 pandemic,** **did your company have a company-approved business continuity plan for response to potential “force majeure” crises? If yes, did this plan include a health security crisis scenario?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Our company had a formal “force majeure” business continuity plan, and this included a health security scenario.  | [ ]  Although such business continuity plan existed, a major health security crisis was not part of it.  | [ ]  Our company did not have a formal plan.  |
| **Optional: comments / clarifications****…………** |

1. **During the pandemic, most businesses were forced to make fast readjustments in the organisation of work to protect health and safety of the personnel.**

**Has the implementation of these readjustments affected your business *significantly* (e.g. delays in honoring contracts; significant investment in personal protection equipment and/or remote working tools, additional cyber security, etc.)?**

**\* Maximum one choice allowed.**

|  |  |
| --- | --- |
| [ ]  Yes  | [ ]  No  |
| **Optional: explain what the impacts were** **………………………….** |

1. **If these *readjustments* impacted your business *significantly*, what do you consider to be the most important factors?**

**\* Maximum three choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  The lack of personal protective equipment (PPE) and the time it took to obtain it.  | [ ]  Insufficient remote work tools / capabilities/ training | [ ]  Above the issue of PPE or remote work capabilities, a more important reason was insufficient or inexistent protocols and rules. These had first to be defined before being clearly communicated to employees. |
| [ ]  Our company reacted fast in delivering PPE and remote work capabilities to our employees, as well as to define clear rules/ protocols. However, our business was affected by delays or cancellations by our business partners / suppliers.  | [ ]  The main impact of work readjustment was triggered by cross-border travel restrictions by our personnel and/or products on the supply chain.  | [ ]  Other. Please specify:…. |

1. **In the context of government responses to the COVID-19 crisis, has your company provided manufacturing capacity or other type of support to respond to the pandemic crisis (including support by the military to the civilian sector e.g. hospitals, healthcare, police; or research activities focused on COVID)?**

**\* Maximum one choice allowed.**

|  |  |
| --- | --- |
| [ ]  Yes **If yes, could you provide additional details?**\*\* *More extensive details can also be provided as an annex to this questionnaire. …………*……………………. | [ ]  No  |

**A.2. ECONOMIC IMPACT**

*A very broad topic encompassing how to ensure business survivability facing cash-flow issues due to interrupted working activities and payment delays.*

*\*\*\* Some aspects related to economic impact were also addressed in the previous section and answers can also be used to inform this section/ chapter.*

1. **Was your company forced to interrupt activities for a significant period during the last 6 months because of the pandemic?**

**If yes, about what percentage of the activities were interrupted and put on hold, and in which business line more specifically?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Our company had to put hold all the activities.  | [ ]  Our company had to interrupt - some of the activities. [ ]  Strategic activities. [ ]  Non-strategic activities. Please specify more details.  | [ ]  No activity was interrupted  |
| **Optional: comments / clarifications****………………………….** |

1. **Has the pandemic impacted employment in your company** **during the last 6 months, or is it likely to impact it in the short term (i.e. 3-5 months/ by the end of 2020)?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes, during the pandemic  | [ ]  No, but the company had to make some concessions regarding the salaries and/or work hours/shifts.  | [ ]  Not yet but most likely it will impact employment by the end of the year.  |
|  | [ ] Not at all  |  |
| **Optional: comments / clarifications****………………………………………** |

1. **Before the start of the COVID-19 crisis, do you estimate that your company’s business growth forecast/ sentiment was:**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Rather positive  | [ ]  Rather negative  | [ ]  The same as today, in spite of the pandemic  |
| **Optional: comments / clarifications****………………………………………………** |

1. **Do you estimate that governments will revisit their defence equipment requirements because of “lessons learnt” and/or consequences of the pandemic? If yes, in what direction?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes, the lessons from pandemic will most probably result in revisited requirements but not in a reduction of defence budgets.  | [ ]  No, because other risks and vulnerabilities still exist in spite of the pandemic.  | [ ]  Defence budgets are likely to be reduced to the benefit of other sectors.  |
| **Optional: comments / clarifications****……………………………………………** |

1. **If defence equipment requirements will be revisited and/or defence budgets reduced, how fast do you estimate that your business would be able to adapt in order to respond to these new requirements / economic situation?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Rather fast (e.g. our business is already very diversified)  | [ ]  Rather slow (e.g. our company is mostly active in one sector / on one supply chain, etc.)  | [ ]  A preliminary wide consultation of public authorities with our industry is needed to discuss adapted requirements and modalities to meet them.  |
| **Optional: comments / clarifications** **……………………………………………** |

1. **What kind of measures do you consider that NATO and/or partner nations should take to support business continuity of defence-related industries?**

**\* Several choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Governments and NATO should invest more in modernisation programmes of major defence systems  | [ ]  Governments should consider more requirements related to civil-military needs since the pandemic showed how much defence and civil security are intertwined.  | [ ]  Other Please specify:….. |
| **Optional: comments / clarifications** **……………………………………………** |

1. **Do you estimate that your company is ready to quickly adapt to changing requirements deriving from the post-/ ongoing- pandemic?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes  | [ ]  No | [ ]  It depends Please specify:….  |
| **Optional: comments / clarifications** **……………………………………………** |

**A.3. PROTECTION OF KNOWLEDGE AND SECURITY OF SUPPLY**

*This topic encompasses security of communications, cyber security (consider that smart working has broadened organizations’ security perimeters), how to protect assets and knowledge, guarantee supply chains’ integrity, prevent unwanted industrial takeovers (of SMEs, in particular).*

1. **If you estimate that the integrity and continuity of your company’s supply chain was compromised due to the pandemic, what would be the main causes?**

***\*\* Integrity of the supply chain refers to a wider set of issues – for example, but not limited at: increased risk of insertion in your supply chain of counterfeit products; increased risk of cyber security attacks, and thus, vulnerability with regards to the protection of know-how, trade secrets, etc., other perceived vulnerabilities on the supply chain.***

***\*\* Continuity of security of supply refers to risk of bankruptcy/ interruption of activities of your suppliers, or any other factors that impede access to needed materiel or capabilities on your supply chain.***

**\* Maximum three choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Merchandise/ product travel restrictions *inside* the transatlantic territory  | [ ]  Merchandise/product travel restrictions *outside* the transatlantic territory  | [ ]  Slow down of activities on suppliers’ side due to personnel health security restrictions |
| [ ]  Quality-related requirements were changed | [ ]  Our suppliers depended on a global supply chain. | [ ]  Logistics and freight  |
| [ ]  Merchandise/ product travel restrictions *inside* the EU territory  | [ ]  Merchandise/ product travel restrictions *outside* the EU territory  | [ ]  OtherPlease specify:….  |
| **Optional: comments / clarifications** **……………………………………………** |

1. **If you estimate that the integrity and continuity of your company’s supply chain was compromised due to the pandemic, can you explain how it was compromised?**

**\*Open question**

|  |
| --- |
| **Answer** ………………….. |

1. **During the pandemic, many presential meetings had to be replaced by virtual meetings.**

**Do you estimate that security protocols and tools for continued communication with business or governmental partners from *outside your organization* were ready and adapted for a situation similar to COVID (i.e. increased remote work)?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes  | [ ]  No  | [ ]  Partially  |
| **Optional: comments / clarifications** **……………………………………………** |

1. **Is your sentiment that suppliers have unexpectedly changed prices, terms and/or conditions?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes  | [ ]  No  | [ ]  Partially  |
| **Optional: comments / clarifications – e.g. how?** **……………………………………………………** |

1. **Do you estimate that your government has done enough *before* the COVID-19 crisis to create a framework whereby your company’s assets and knowledge (or your supplies’ assets and knowledge) are protected from industrial takeovers?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes  | [ ]  No  | [ ]  Partially  |
| **Optional: comments / clarifications e.g. suggestions for improvement.** **…………………………………………………………** |

1. **How do you think that NATO and NATO partner governments could help in protecting supply chain integrity, including product quality requirements, in the defence industry sector[[1]](#footnote-1)?**

**\* Several choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  More coordination with industry  | [ ]  Better regulatory framework  | [ ]  Other Please specify:  |
| **Optional: comments / clarifications e.g. suggestions for improvement.** **…………………………………………………** |

**A.4. SECURITY OF SUPPLY**

*This topic covers how to guarantee supply chains’ integrity and the possibility to deliver products and services in time in all conditions, and how to prevent unwanted industrial takeovers of SMEs facing cash-flow issues.*

*\*\*\* Some aspects related to security of supply were also addressed in the previous section and answers can also be used to inform this section/ chapter.*

1. **Do you estimate that your company’s capacity to guarantee security of supply to its customers was affected by the pandemic?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes  | [ ]  No  | [ ]  Partially  |
| **Optional: comments / clarifications; if “yes” or “partially”, could you elaborate on how the pandemic revealed issues regarding security of supply compared to the pre-pandemic situation?** **…………………………………………** |

1. **If yes, what were the main causes?**

**\* Several choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Difficulties in the supply chain; challenges of receiving necessary raw materials and components in time | [ ]  Difficulties with logistics and freight; challenges of receiving necessary raw materials and components in time | [ ]  Difficulties with our own production Please specify the reasons for such difficulties:  |
| **Optional: comments / clarifications****……………………………………………………** |

1. **What were the most important challenges you faced during the pandemic concerning security of supply?**

**\*Open question**

|  |
| --- |
| **Answer****………………** |

1. **What were your most important lessons learned from the pandemic concerning security of supply?**

**\*Open question**

|  |
| --- |
| **Answer** **………………..** |

1. **In your opinion, what public/ governmental measures would help supporting security of supply for the defence sector?**

**\* Open question**

|  |
| --- |
| **Answer****………………** |

**A.5. NEW TECHNOLOGIES**

*The topic covers mainly new technologies that could mitigate the effect of the pandemic on industrial operations. As a reference, collaborative robots, 3D printing, remote team working, augmented reality, modelling and simulation, new/alternate logistic approaches, but also machine learning predictive models, etc. capable to support business continuity and to enhance effectiveness of safety and security measures.*

1. **In your opinion, what new technologies helped most business continuity as well as growth of your company’s business *during* the COVID-19 pandemic, or in the aftermath?**

**\* Maximum three choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  3D Printing  | [ ]  collaborative robots | [ ]  remote team working/ communication  |
| [ ]  augmented reality | [ ]  modelling and simulation | [ ]  new/alternate logistic approaches |
| [ ]  machine learning predictive models | [ ]  biotech  | [ ]  cyber security /cyber protection |
| [ ]  Industry 4.0 (full digitalization) | [ ]  Geolocalization, tracing and tracking[[2]](#footnote-2) | [ ]  Others Please specify……………. |

1. **In how far were these technologies provided by SMEs (whether your company or your company’s business partners’)?**

**\* Maximum three choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Most of these technologies were provided by SME partners  | [ ]  Most of these technologies were developed in house.  | [ ]  Our company supported SMEs in further funding and development of such technologies  |
| [ ]  As an SME, our company benefitted from private investment to further fund development of such technologies  | [ ]  As an SME, our company benefitted from public funding support to further fund development of such technologies | [ ]  Other Please specify:….. |

1. **In your opinion, in what new technologies should NATO /NATO and partner nations should invest most in the aftermath of the COVID-19 crisis?**

**\*Open question**

|  |
| --- |
| **Answer**…………………..  |

**A.6. TOOLS**

*The topic assesses existing tools that proved to be useful/ key during the pandemic (e.g. secure, standard videoconferencing tools) and that are recommendable to be standardised within NATO and partner nations, including among Defence Companies, in order to create a future-proof interoperable common technological platform/ interface.*

1. **In your opinion,** **has the COVID-19 crisis revealed the necessity for further interoperability and standardisation of communication technologies among NATO and NATO partner defence industries? If yes, what would these be?**

**\* Maximum one choice allowed.**

|  |  |
| --- | --- |
| [ ]  Yes  | [ ]  No  |
| **Optional: comments / clarifications** **……………………………………………** |

1. **Is your company considering investment in new research and development areas as a result of the COVID-19 crisis?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes  | [ ]  No  | [ ]  Possibly  |
| **Optional: comments / clarifications** **……………………………………………** |

**A.7. REGULATORY ENVIRONMENT**

*This topic addresses how countries’ emergency preparedness and “force majeure” regulatory environment influenced business continuity both at national and cross-border levels - since many defence related companies had to honour contracts for NATO or for other nations (being part of a multinational supply chain).*

*Another perspective on the regulatory environment is related to approval for the acquisition of protective equipment in emergency situations, and how the standards of quality, safety and fight against counterfeit can still be enforced in this type of situation.*

1. **Do you estimate that regulatory environment in your country was suitable enough to accommodate fast reaction by defence-related industries to similar (unpredictable) crises?**

**\* Maximum one choice allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  Yes  | [ ]  No  | [ ]  Partially  |
| **Optional: comments / clarifications (regarding suitability of regulatory environment to unpredictable “force majeure” events, prior to the COVID-19 crisis)****………………………………………** |

1. **In your opinion, what would be the most important regulatory and public policy measures to be taken by governments in the aftermath of the COVID-19 pandemic to assure continuity of knowledge and skills in the transatlantic and NATO partner defence industrial bases?**

**\* Several choices allowed.**

|  |  |  |
| --- | --- | --- |
| [ ]  More investment in R&D for new technologies  | [ ]  More measures to assure security of supply and quality across the supply chain  | [ ]  Others Please specify:  |
| **Optional: comments / clarifications****……………………………………………** |

**A.8. RECOMMENDATIONS**

1. **Is there any recommendation that you would like to make to the defence industry in general?**

**\* Open question**

|  |
| --- |
| **Answer****……………………………………..** |

1. **Is there any recommendation that you would like to make to NATO as an organisation?**

**\* Open question**

|  |
| --- |
| **Answer****……………………………………..** |

1. **Is there any recommendation that you would like to make to NATO and partner nations?**

**\* Open question**

|  |
| --- |
| **Answer****……………………………………..** |

1. **GENERAL ASPECTS**
2. **Please specify the company’s country of registration: ……………………..**
3. **Economic Entity / Organisation**

|  |  |
| --- | --- |
| [ ]  Not disclosed  | [ ]  Disclosed Please specify the name of the company: HQ Address: …………………………… |

1. **We represent:**

**\* Maximum one choice allowed.**

|  |  |
| --- | --- |
| [ ]  ASmall and Medium-Sized Enterprise (SME)[[3]](#footnote-3) | [ ]  A company bigger than an SME * Size of the company (number of employees):………………..
* Country(ies) of operation:……………
 |
| [ ] An industry association * Size of the association (number of member companies):……………….
* National or multinational: …………
 | [ ] Other Please specify:……………………….. |

1. **In what sectors is your company/ association active?**

***\* Only one choice is allowed.***

|  |  |  |
| --- | --- | --- |
| [ ]  Exclusively in the defence sector  | [ ]  Defence and/or civil protection and/or homeland security sectors  | [ ]  Also civilian sector(s) besides defence/ civil protection/ homeland security  |
|  | [ ] Exclusively in civilian sectors  |  |
| ***Optional*: more details regarding the areas of activity and technologies/ services provided** ……………………………… |

1. **Our company’s manufacturing facilities are based *mostly*:**

***\* Only one choice is allowed. Not applicable for associations. However, details regarding member companies can be provided at “Optional”.***

|  |  |  |
| --- | --- | --- |
| [ ]  In the country where the company is registered  | [ ]  In the transatlantic territory  | [ ]  Outside the transatlantic territory  |
| [ ]  In the European (E.U.) territory | [ ]  In one or several NATO partner country(ies)Please specify:…. | [ ] Other Please specify:……  |
| ***Optional*: additional details** **………………………………………** |

1. **Most of our suppliers/ subcontractors are based:**

***\* Maximum one choice is allowed. Not applicable for associations. However, details regarding member companies can be provided at “Optional”.***

|  |  |  |
| --- | --- | --- |
| [ ]  In the country where the company is registered  | [ ]  In the transatlantic territory  | [ ]  Outside the transatlantic territory  |
| [ ]  In the European (E.U.) territory | [ ]  In one or several NATO partner country(ies)Please specify:…. | [ ]  Other Please specify:……  |
| **Optional: additional details** **…………………………………** |

1. **Our company participates in multinational acquisition programmes in the transatlantic space (NATO, EU, OCCAR, other)**

***\* Maximum one choice***

***\*\*Not applicable for associations.***

|  |  |
| --- | --- |
| [ ]  Yes  | [ ]  No  |

**If yes, our company:**

|  |  |
| --- | --- |
| [ ]  Participates as prime contractor or system integrator  | [ ]  Participates as sub-contractor / supplier  |

1. The scope of the concept of “*Integrity of the supply chain” is defined at question No. 12.*  [↑](#footnote-ref-1)
2. When used as nouns, **trace** means an act of **tracing**, whereas **track** means a mark left by something that has passed along. When used as verbs, **trace** means to follow the trail of, whereas **track** means to observe the (measured) state of a person or object over time. [↑](#footnote-ref-2)
3. According to the EU definition, an SME “is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro”. [↑](#footnote-ref-3)