### First: some words on STRIKE3-Project and the scope of this questionnaire

Thank you very much that you are supporting the highly recognized STRIKE3-EU-project! It takes only a few minutes and it helps so much to align the future direction of the project.

STRIKE3 is an ongoing new European initiative to support the increasing use of GNSS within safety, security, governmental and regulated applications. STRIKE3 will address the concerns of government departments, transport operators, critical infrastructure operators, service providers and law enforcement agencies across Europe and globally, that are concerned about GNSS denial of service attacks.

Since GNSS is being used in so many fields it has been stated as critical infrastructure. Therefore the European Commission, represented by the European GNSS Supervisory (GSA) through the HORIZ0N 2020 programme, funds the STRIKE3-project.

STRIKE3 will develop international standards in the area of GNSS threat reporting and GNSS receiver testing. This will be achieved through international partnerships. GNSS threat reporting standards are required to ensure that international GNSS threat databases can be developed. GNSS receiver test standards are required to ensure new applications can be validated against the latest threats. Both standards are missing across all civil application domains and are considered a barrier to the wider adoption and success of GNSS in the higher value markets.

As part of STRIKE3-activities it shall be analysed in detail, to whom, where, why and how badly the interferences and interruptions of GNSS would cause problems. For this purpose the following questionnaire has been developed.

Your participation will support the European Commission’s effort to achieve a safe and reliable GNSS. It will allow us to include your concerns within this EU-project. Infilling will not take longer than 10 minutes but it will be a highly valuable contribution to make life safer.

For any question, do not hesitate to contact us:

Martin Pölöskey

Dipl.-Ing.

Head of Automotive & Rail Innovation Center (ARIC)

Business Unit of AGIT mbH

Tel: +49-2432-93376-11

Mobil: +49-173-2730 440

Mail: martin.poloskey@aric-aachen.de

[*http://www.gsa.europa.eu/standardisation-gnss-threat-reporting-and-receiver-testing-through-international-knowledge-exchange*](http://www.gsa.europa.eu/standardisation-gnss-threat-reporting-and-receiver-testing-through-international-knowledge-exchange)

### EU project STRIKE3 – Analysis on GNSS-Interferences and its Consequences

(If yes, just tick like “ ”)

# In which field is your organisation active?

|  |  |
| --- | --- |
| Regulation Authorities / SpectrumTransportationTimingEnergyGeodesy & MappingOthers | Please specify a little bit further: |

# What is your role with respect to GNSS?

|  |  |  |
| --- | --- | --- |
| **User of GNSS**   * + Navigation   + Position   + Timing   + Other | **Service Provider**   * + Tracking / monitoring service  based on GNSS   + GNSS data provider   + GNSS correction /  augmentation service provider   + Other | **Regulator**   * + RF Spectrum   + User domain   + Other |
| Please specify a little bit further: | | |

# **Are you aware that GNSS can be affected by interferences** (unintentional or intentional) that may degrade performance? yes / no

# At a high level, how could loss of GNSS in an area due to interference affect you?

## Don’t know

## No impact

## Complete loss of service / unable to complete operation

## Degradation in service / operation performance

## Increased workload / effort

## Other (please specify)

|  |
| --- |
|  |

# Would information about detected interference events be useful to you?

## No

## Yes - at a single, specific site/location

## Yes - at several sites/locations

## Yes - for multiple sites across a wide area

## Yes - from a mobile unit

# What type of information about GNSS interference would be useful to you?

* I only need to know if the GNSS signal is affected or not (e.g. loss of tracking)
* I would like additional information about the interference (please indicate all that apply)

## Start time and duration of interference events

## Interference signal level / power

## Information from spectrum analysis, e.g. affected frequency

## Type/classification of interference signal

## Whether interference is likely to be intentional or unintentional

## Information if the jammer has been detected before (if interference is/was intentional)

## Real-time warning / alert of detection

# If your location / operation / service was affected by GNSS interference, would further investigation to identify and potentially remove the source of the interference be necessary?

* Yes / No
* If yes, who is responsible for investigating the problem?

## Yourself

## Someone else (please specify)

|  |
| --- |
| Who should be “someone else”? |

# If you currently operate (or would consider in the future) an interference monitoring system,

* Would you be willing to share information about interference events with a certain defined community? yes / no
* If yes, which information:

## Simple information (e.g. total number of detections within a certain time period)

## Extended information (e.g. record of duration and power level of interference for each event)

## Detailed information (e.g. interference signal information and raw data sample)?

* Would you be willing to input the information into an international database for combating interference and jamming? yes / no
* Would you like to get information out of this database? yes / no

If yes, what type of information?

## General statistical data regarding your location / area

## Overall statistical data about interference from regional or global network

## Information about events at other locations that may be linked to “your” interference (e.g. common interference signature)

## Information about new jammers detected

in Europe  
Worldwide

## Other (please specify)

|  |
| --- |
|  |

# Do you foresee a need for your receivers / systems to be tested against resilience to GNSS interference?

* No
* Yes:

## Currently do testing

## Planning to do testing in the future

## Currently buy equipment that has gone through interference testing programme

## Would be interested in using equipment that has gone through standardised interference testing programme in the future

|  |  |
| --- | --- |
| Name: | Company: |

## Thank you very much for your contribution! Please reply to [martin.poloskey@aric-aachen.de](mailto:martin.poloskey@aric-aachen.de).

## - END -