**3GPP TSG SA WG 1 Meeting #99e S1-22xxxx**

**Electronic Meeting, 22 August – 1 September 2022** *(revision of S1-22xxxx)*

**Source: XXX**

**pCR Title: Pseudo-CR on harmonised KPIs for sensing scenarios**

**Draft Spec: 3GPP TR 22.837**

**Agenda item: x.x**

**Document for: Approval**

**Contact: XXX**

*Abstract: This contribution proposes harmonized KPIs applicable to all use cases for integrated sensing and communications.*

**1. Proposal**

It is proposed to agree the following changes to 3GPP TR 22.837 and for every use case to use the same KPI table.

\* \* \* First Change \* \* \* \*

# 3 Definitions of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**sensing measurement**: obtaining sensing measurement data about a target object.

**sensor entity:** A sensing capable entity which transmits and/or receive sensing RF signals.

**sensing result**: the information about a target object after processing, such as being present and object dimension, which is related to a particular sensing service.

\* \* \* Next Change \* \* \* \*

# 7 Consolidated potential requirements and KPIs

## 7.1 Consolidated potential requirements

## 7.2 Consolidated potential KPIs

Table 7.2-X Performance requirements for integrated sensing and communication scenarios

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Scenario | [TBD on high level categorization] | | | | | | | | |
| Sensing distance (max/min) (note 1) | Sensing distance accuracy  (horizontal/vertical, note 2) | Sensing horizontal azimuth/vertical elevation (note 3) | Target object speed | Sensing service latency (note 4) | Reliability (missed detection/false alarm, note 5) | Refreshing rate (note 6) | Spatial relation  (horizontal/vertical, note 7) | Detectable RCS (note 8) |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| NOTE 1: The distance between a sensor entity and a taget object  NOTE 2: Only if sensing is used for positioning of a target ocject  NOTE 3: Horizontal azimuth and vertical elevation of sensing RF signals.  NOTE 4: Time elapsed between the event that triggers the determination of the sensing result and the availability of the sensing result at the system interface  NOTE 5: Probability of missed detection and false alarm  NOTE 6: Time interval between successive sensing results reporting to the sensing application server  NOTE 7: The size of the smallest target object that can be detected by NR based sensing  NOTE 8: A measure on detectability of a target object at the receiver [dBsm] | | | | | | | | | |