

Status Report on GNSS Application Catalogues User Requirement and User Questionnaire

By ICG WG-B Application Subgroup

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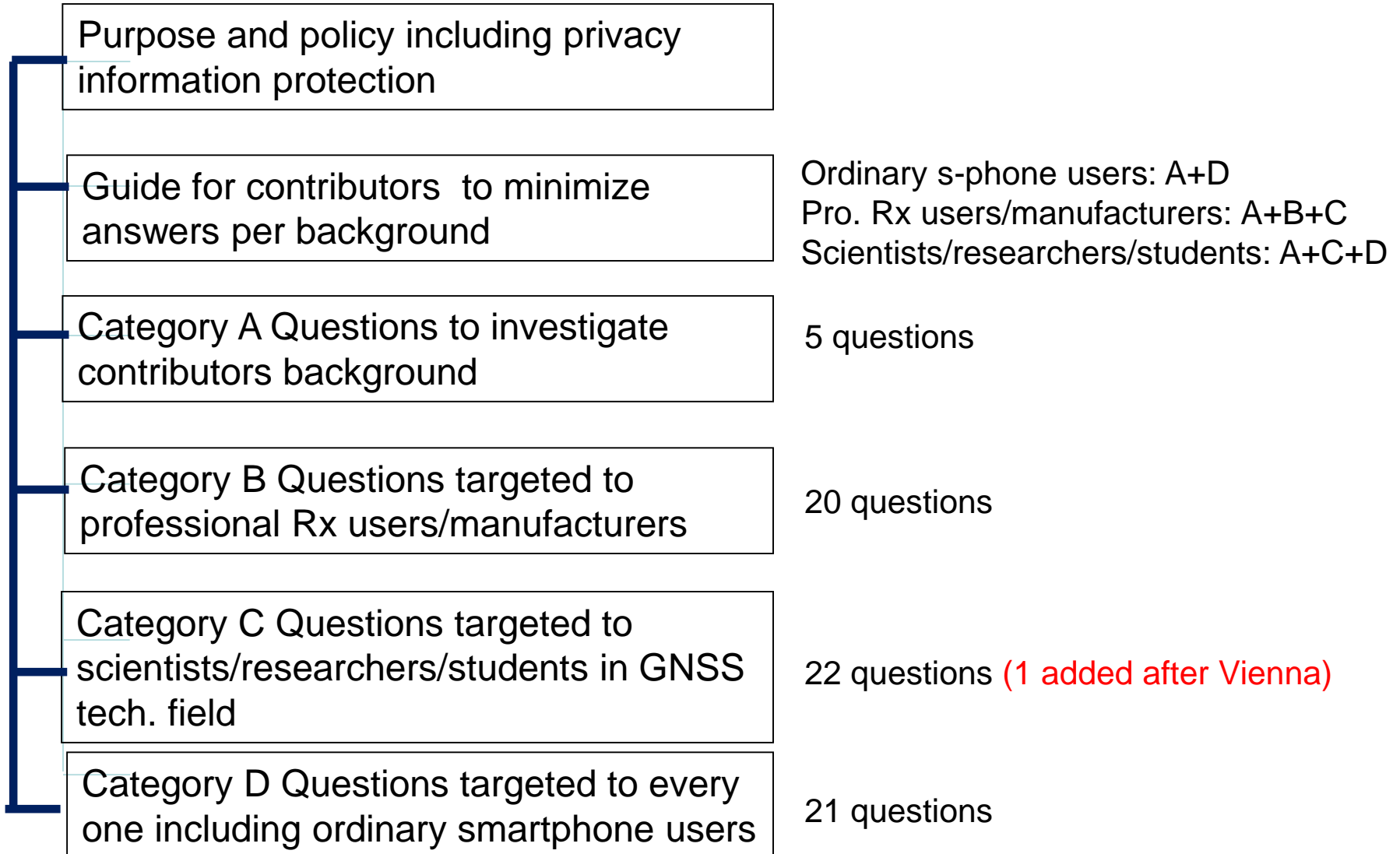
OUTLINES

1. Meetings held after ICG-12
2. User Requirement Questionnaire Status
 - Strategy to analyze answers to Questionnaire
 - Compliance matrix check & additional questions
3. Conclusions

ICG-WG B Application Subgroup: Meetings held after Kyoto ICG-12

- #1 on March 4 in Munich during Munich Sat. Nav. Summit
 - Exchanged updated information about GNSS/RNSS services among UE/China/Japan/Korea, including Galileo PPP service concept and targeted market.
 - Discussed how to improve questionnaire.
- #2 on May 21 in Harbin during CNSC 2018.
 - Discussed and agreed on the structure of Questionnaire.
 - Agreed on making interim report in Vienna WG-B meeting.
- #3 on Jun 23 in Vienna during Providers Meeting.
 - Made interim report Discussed and agreed each provider reviews & comments on Questionnaire for finalization.
 - Discussed and agreed each provider reviews & comments on Questionnaire for final improvement. (So far no comments -----)
 - Requested again the assignment of local organization in charge to promote Questionnaire and Data processing.
- #4 on Oct. 30 in Tokyo during IPNT-J 2018
 - Discussed strategy of questionnaire and made the final draft version of Questionnaire.

Questionnaire Structure



Purpose and strategy of Questionnaire

1. Investigate area dependency on;
 - a) Interest in GNSS hot topics to plan necessary local and world promotion
 - b) Actual occurrence of interference/spoofing problem to plan local and world countermeasures
 - c) Unique service existence to promote to other areas
 - d) Receivers/infrastructures existence for common knowledge
 - e) Indoor navigation spread to pursue further convenience
 - f) Privacy consciousness
 - g) Local PVT accuracy status to consider improvement

2. Collect hints for further ICG discussion about;
 - a) Requirement for GNSS PVT accuracy
 - b) Necessary improvement of GNSS and its information disclosure
 - c) New GNSS service development

Compliance matrix

Category	Area dependency							Hint collection		
	a	b	c	d	e	f	g	a	b	c
B	9	2	8	12	0	0	9	0	0	1
C	14	6	8	2	2	1	5	4	7	12
D	2	2	11	0	4	4	3	0	0	3
Total	25	10	27	14	6	5	17	4	7	16

1. Through the compliance matrix check, confirmed all the strategy items are covered.
2. Add one more question in Category C to the Vienna version which seems important to collect hint at red box for future discussion as follows;

Q22: Do you need any information to be disclosed further by GNSS system provider to improve your application, business promotion, etc.?

Enter comments if any: _____

Target answerers and distribution/collection

(same as Vienna report)

Target answerers

- Professional GNSS Rx users such as land & house surveyors, GNSS monitor engineers, GNSS meteorology scientists, GNSS receiver/module/chip manufacturers, integrators of GNSS receivers, etc.
- Scientists, research engineers, college students who normally do not use professional GNSS receivers but are knowledgeable in GNSS technology.
- Ordinary users of smartphone kind application and unfamiliar with GNSS technology, such as high school/college/university students in a difference technical fields.

Questionnaire distribution

- Distribute “Questionnaire” and “QAS”, Question Answer Sheet, as attachment of E mail to possible answerers.
- One answerer shall mark at answer boxes of QAS with EXCEL format and send back by E mail.
- Target No. of answer collection is tentatively set as 500 or more per each provider region.

Conclusions and near term plan

- Questionnaire & QAS are almost complete.
- An initial electronics version of the questionnaire (using free internet application reliable and safe from the viewpoint of worldwide access) has been completed and is currently being tested and evaluated.
- Total progress is about 5 months behind compared to ICG-12 plan.
- App SG co-chairs like to request WG-B, for third time, that each provider assigns responsible window organization to cooperate the questionnaire distribution, answer collection and answer data analysis so we can proceed to the next step quickly.
- APP-SG co-chairs will make statistic data graph tool and draft the composition of GNSS Application Catalogue by the end of 2018.

List of WG-B, APP-SG representative of each provider and members

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