

SONY

3GPP SA1 Meeting #105

Athens, GR, 26 Feb-01 March 2024

Agenda Item: 9.1

S1-240025

Thoughts on the Introduction of (Key) Values in SA1

Intro

Following the initial discussion during SA1#104 that was based on “**S1-233584: Addressing KVIs in SA1**” and the subsequent SA1 informal conf calls (30th & 31st January 2024) on “**potential introduction of KV/KVIs in 3GPP**”, this contribution aims to share some Sony thoughts on the topic, addressing a few of the questions raised:

- Is the concept of values relevant to SA1 and why, what are the risks/opportunities ?
- Which values could be relevant to address as part of SA1’s Rel-20 part 2 study work and how could they be integrated in the SA1 work?
- Should 3GPP reach out to external stakeholders and if so to which ones, how and when ?
- Scope of exercise and way forward

Sony views on (key) values

Is the concept of values relevant to SA1 and why, what are the risks/opportunities?

1. Recommendation ITU-R M-2160-0 (11/2023) *“Framework and overall objectives of the future development of IMT for 2030 and beyond”*, is the latest milestone from ITU-R towards IMT2030. **It includes a number of recommendations** (e.g. usage scenarios and capabilities of IMT2030). The document has also identified a number of **goals** which IMT2030 is expected to meet: **inclusivity, sustainability, ubiquitous connectivity, enhanced security and resilience** etc. Like the rest of the recommendations in ITU-R M-2160-0, **these goals are likely to need to be addressed as part of the work that 3GPP will do towards the submission to ITU.**
 - “Goals” could be seen as a synonym to “values”. SA1 does not need to use the word “values”, any word that is found suitable could be selected.
2. 3GPP and SA1 have been addressing values for some time now: Public safety, satellite work for ubiquitous connectivity, confidentiality/anonymity RQs on various features. **Studying whether we can formalize the use of such values sounds like a reasonable next step.**
3. SA1 has the **right balance between various stakeholders** (operators, vendors, verticals...).
4. Last but not least, if SA1 does not do this study/exercise, probably **somebody else in 3GPP will do it.**

Sony views on (key) values

Which values could be relevant to address as part of SA1's part 2 study work and how could they be integrated in the SA1 work?

- The goals defined in the ITU-R M-2160-0 recommendations document can form the basis for further discussion aiming to identify a **manageable subset of values** that can be used to generate discussion in SA1.
- The discussion in SA1 could help to define/clarify the selected subset of values, which along the way could be renamed, or even broken down (e.g. sustainability -> economic, environmental, social).
- One approach to integrate the assessment of values in SA1 is to consider a **new use case template structure for Rel-20 part 2**. This will allow the discussion around values to use real use cases proposed for the Rel-20 part 2 SI(s) .
- An alternative approach could be to have a dedicated study (maybe even "G-agnostic") on the application of values in SA1.

Should 3GPP reach out to external stakeholders and if so to which ones, how and when?

- External stakeholders are needed when it comes to the assessment of values that require knowledge/expertise beyond the scope of SA1. It needs to be clarified if that is needed, especially at the beginning of the exercise where the **focus might end up being only on values where SA1 has the expertise to address**.
- If found necessary, external stakeholders can be identified following further discussions.
 - Policy makers would be important to involve, but it is not clear if they can be ready to provide their feedback in the timeframe required by SA1.

Sony views on (key) values

Scope of the exercise:

- Aim should be to allow SA1 to make an **educated decision** if, how and which values can be applicable to SA1.
 - Rel-20 part 2 is only about studying topics, so there is no rush to discuss what could happen in later releases.
- Any decision on the use/adoption of values beyond SA1, is up to TSG SA/RAN/CT.

Moving Forward:

- Any further discussion will require a better understanding of how values can apply to use cases.
 - Instead of creating a dedicated SI for studying values, SA1 could **incorporate the discussion/assessment as part of Rel-20 part 2 SI(s) by updating the use case template with a new section.**
 - Identify a manageable subset of values (e.g. from the ITU-R recommended goals) that can be used to continue the discussion in SA1; clarify and then assess those values as part of proposed use cases.
 - Focus the work within SA1, and if found necessary at a later stage (or at the end of Rel-20), engage external stakeholders.
- An alternative approach could be to have a dedicated study (maybe even “G-agnostic”) on the application of values in SA1.

Concluding ...

- New concepts/ideas require time to mature; discussion helps to answer questions, improve understanding and hopefully, eventually reach consensus.
- Currently it looks like there is enough support to investigate the introduction on values/goals (or any other word that is chosen by the group) in SA1.
- An **educated decision** on whether to formally adopt values or not, should be taken at the end of Rel-20.
- An initial **manageable subset** of values would help to assess their applicability in real use cases proposed as part of Rel-20 part 2.
 - Recommendation ITU-R M-2160-0 (11/2023) goals should be used as the basis for further discussion.
- Assessment of changes to the SA1 use cases template could be the next step.
 - This step might be needed in any case to be discussed before August 2024 since it could include more changes/improvements.

Example of sustainability-related values assessment

3.5.1.2 Sustainability Analysis

	Sustainability Handprints (benefits)	Sustainability Footprints (cost)
Environmental	<ul style="list-style-type: none"> • Increase in resource efficiency in other sectors, such as transport and energy • Reduces the need for large physical spaces and extensive venue infrastructure 	<ul style="list-style-type: none"> • Increased electronic waste from the disposal of devices and network equipment • Increased material consumption from producing the hardware components and expanding network infrastructure including raw material extraction, manufacturing processes, and transportation • Increased energy consumption and associated Greenhouse Gases (GHG) emissions to power devices, data centres, and active network component
Social	<ul style="list-style-type: none"> • Enhanced educational possibilities • Enhanced job opportunities • Enabler to participate in social environments (e.g., education, working environments, cultural events, socializing events, etc) • Enhanced quality of life and mental health with more opportunities for social interaction, and due to inclusion and well-being • Enhanced and interactive cultural and educational experiences 	<ul style="list-style-type: none"> • Potential digital divide, digital inequalities depending on access, information technologies (IT) literacy and economic status • Privacy concerns of human digital footprint • Potential risks for trustworthiness in case of hacking • Potential risk for individual isolation and alienation (i.e., loss of human physical contact) • Potential risk for enhancing manipulation (proteus effect: representation of avatar may influence behaviour and attitude)
Economic	<ul style="list-style-type: none"> • More efficiency/ productivity • Reduced cost for knowledge transfer (efficiency, cost-efficient) • Increased quality with less cost through information exchange • Profitability – new use cases enabled • Economic benefits from the use of efficient virtual training environments 	<ul style="list-style-type: none"> • Equipment cost affecting profitability • Costs from service and maintenance of the gear • Cost of learning as mitigation strategy, equipment needs to be designed for easy use • Massive initial investments

Example of economic, social and environmental sustainability assessment for immersive reality-related use cases.

Source: *Hexa-x-ii Deliverable D1.2 – 6G use cases and requirements*: https://hexa-x-ii.eu/wp-content/uploads/2024/01/Hexa-X-II_D1.2.pdf

Table 3-2: Seamless Immersive Reality Sustainability Analysis

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