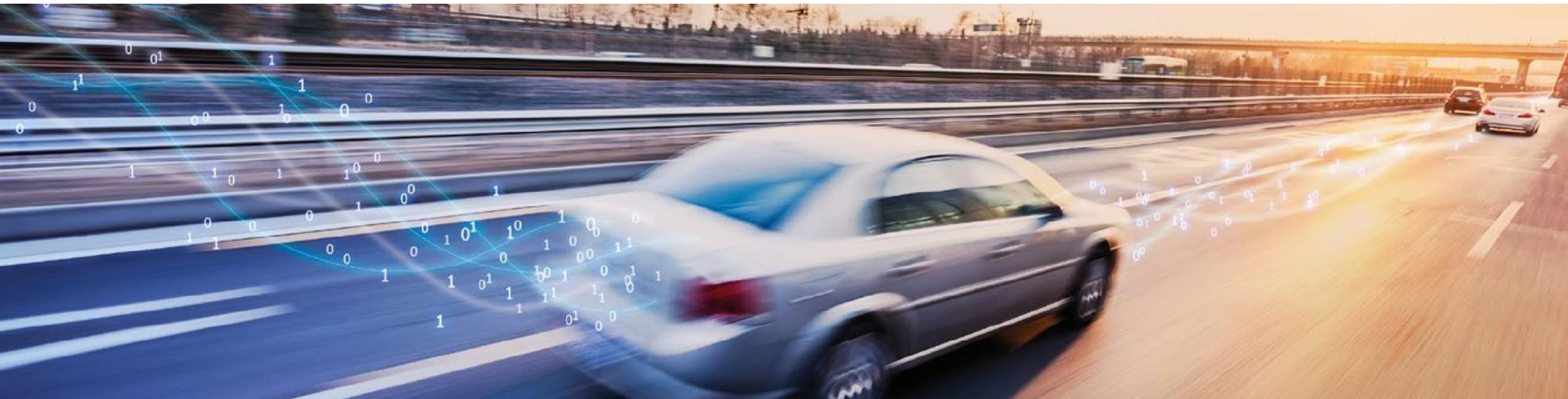# Roadmap Options & Proposed Project Types for ASAM OpenDRIVE

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ASAM
Association for Standardization of
Automation and Measuring Systems

What Project Types Exist at ASAM?

Standard Development Projects

- New, major, minor and revision development of standards.
- <u>Result</u>: Standard.

Concept Projects

- Evaluate, discuss and specify concepts for major extensions of a new or existing standard.
- Recommended project type, if experts do not feel ready to write a standard, or to organize projects that work in parallel for one standard.
- <u>Result</u>: Concept paper.

Implementation Project

- Create supplementary products that support the application of ASAM standards.
- Typically supported by a service provider, who does the actual implementation work.
- <u>Result</u>: Source code or tool.

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What Projects Are Needed for OpenDRIVE?

Standard Development Projects

- Standard Transfer Project: Write missing chapters, clarifications on semantics and syntax, formal data model.
- Standard Further Development: New feature concepts, implementation of new concepts into the standard.
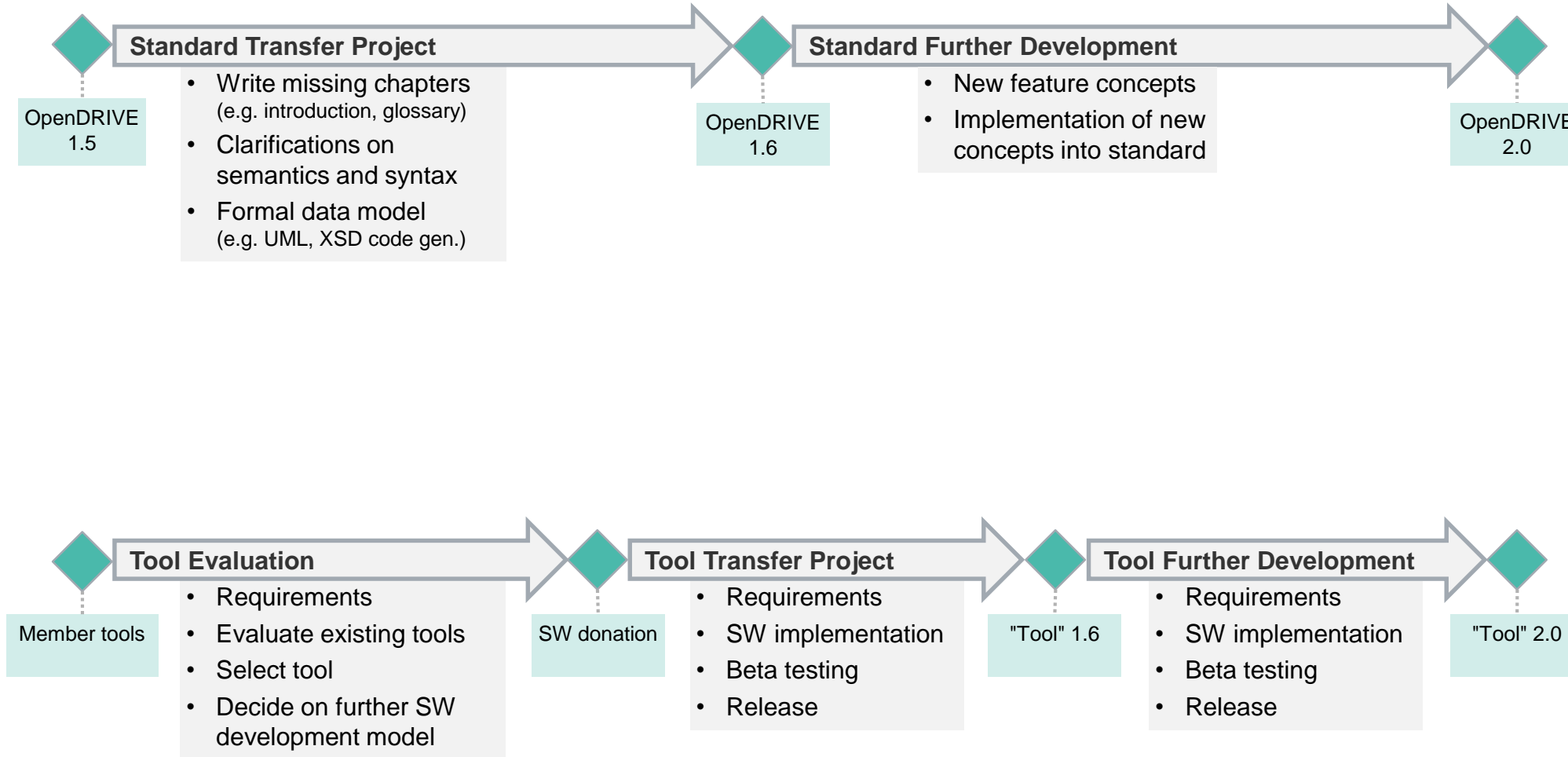
Concept Projects

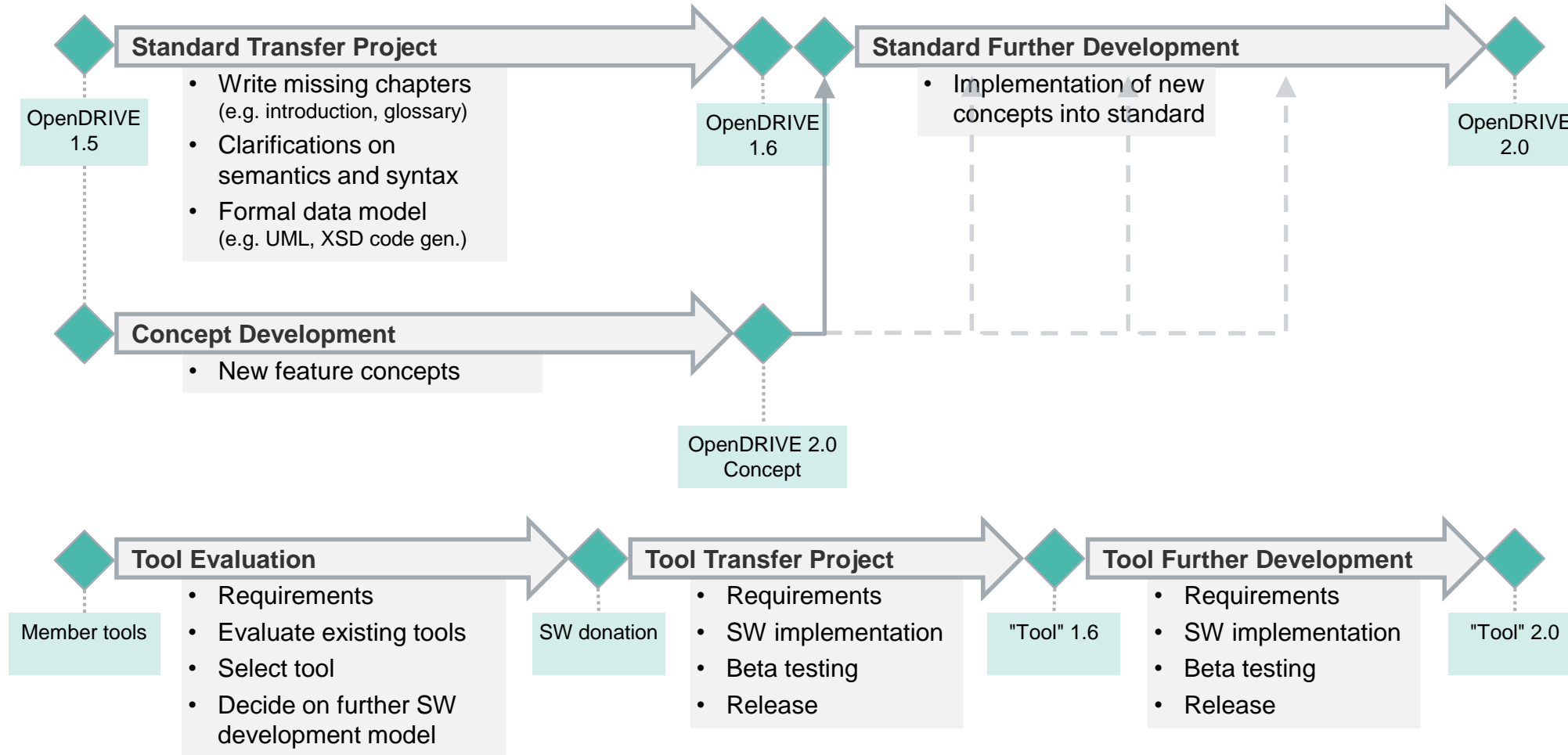- Concept Development: New feature concepts.

Implementation Project

- Tool Evaluation: Determine evaluation criteria, evaluate & choose.
- Tool Transfer: Requirements, SW implementation, beta testing, release.
- Tool Further Development: ditto.

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ASAM OpenDRIVE Roadmap - Sequential Development

Standard Transfer Project

- Write missing chapters (e.g. introduction, glossary)
- Clarifications on semantics and syntax
- Formal data model (e.g. UML, XSD code gen.)

Standard Further Development

- New feature concepts
- Implementation of new concepts into standard

OpenDRIVE 1.5

OpenDRIVE 1.6

OpenDRIVE 2.0

Tool Evaluation

- Requirements
- Evaluate existing tools
- Select tool
- Decide on further SW development model

Tool Transfer Project

- Requirements
- SW implementation
- Beta testing
- Release

Tool Further Development

- Requirements
- SW implementation
- Beta testing
- Release

Member tools

SW donation

"Tool" 1.6

"Tool" 2.0

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ASAM OpenDRIVE Roadmap - Parallel Concept Development

Standard Transfer Project
- Write missing chapters (e.g. introduction, glossary)
- Clarifications on semantics and syntax
- Formal data model (e.g. UML, XSD code gen.)

OpenDRIVE 1.5

OpenDRIVE 1.6

Standard Further Development
- Implementation of new concepts into standard

OpenDRIVE 2.0

Concept Development
- New feature concepts

OpenDRIVE 2.0 Concept

Tool Evaluation
- Requirements
- Evaluate existing tools
- Select tool
- Decide on further SW development model

Member tools

SW donation

Tool Transfer Project
- Requirements
- SW implementation
- Beta testing
- Release

"Tool" 1.6

Tool Further Development
- Requirements
- SW implementation
- Beta testing
- Release

"Tool" 2.0

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ASAM OpenDRIVE Roadmap - Parallel Standard Development

Standard Transfer Project

- Write missing chapters
  (e.g. introduction, glossary)
- Clarifications on
  semantics and syntax
- Formal data model
  (e.g. UML, XSD code gen.)

OpenDRIVE
1.5

OpenDRIVE
1.6

Standard Further Development

- New feature concepts
- Implementation of new
  concepts into the standard

…

OpenDRIVE
2.0

Tool Evaluation

- Requirements
- Evaluate existing tools
- Select tool
- Decide on further SW
  development model

Member tools

Tool Transfer Project

- Requirements
- SW implementation
- Beta testing
- Release

SW donation

"Tool" 1.6

Tool Further Development

- Requirements
- SW implementation
- Beta testing
- Release

"Tool" 2.0

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Recommendation: Parallel Concept Development

Parallelized standard and concept development have worked out best in similar situations

- Faster time-to-marked.

- Less coordination efford between groups.

- But: Double work effort per month for participating companies due to parallel project groups.
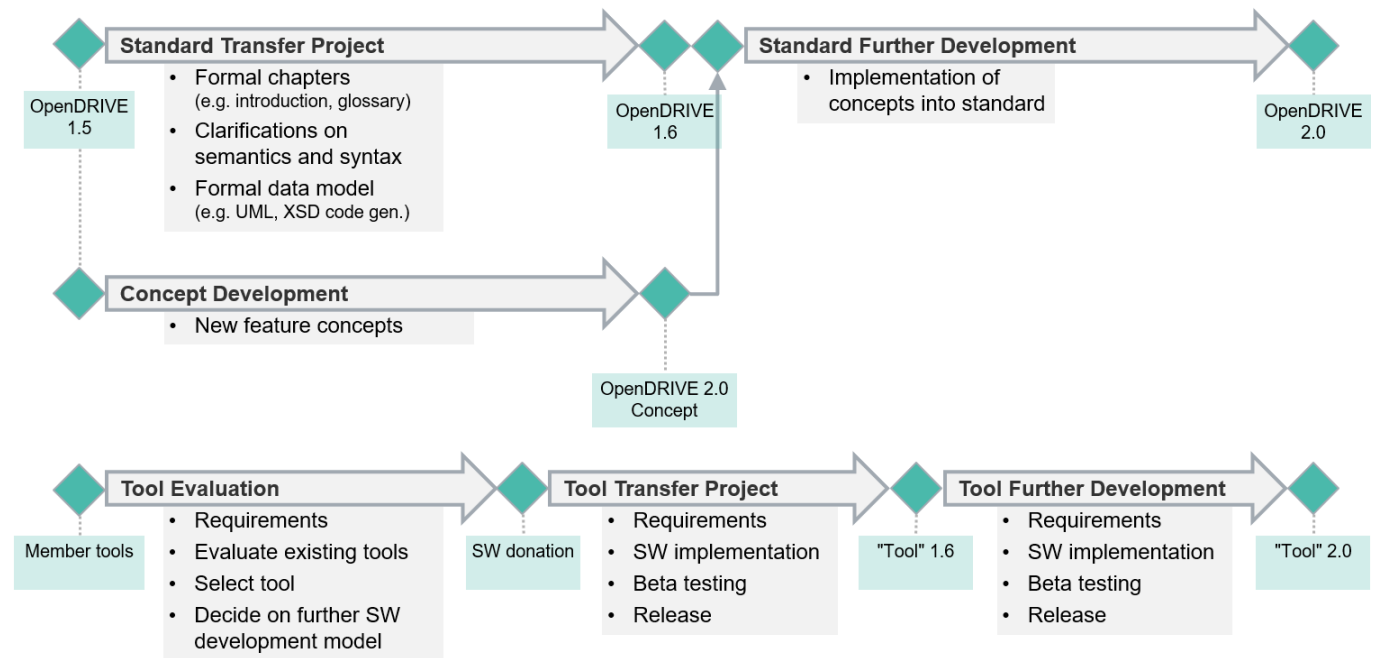
Discussion

Questions or comments to the proposed roadmaps?

- Voting: 100% of the on-site participants voted for parallel standard and concept development, as documented on page 5 and 7 of this document.

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Thank you!

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