ASAM | Association for Standardisation of Automation and Measuring Systems

Telematics Workshop

Minneapolis, MN
14 June 2016

Internet:
SSID: PSAV Event Solutions
Password: ASAM (all capitals)

Welcome Message

DAIMLER

VOLVO

Allison Transmission

Continental

Cummins

EATON

TATA

WABCO

ACTIA®

GEOTAB
management by measurement

KPIT

Omnitracs

PEOPLENET

ZONAR®
INSPECT • TRACK • KNOW

Agenda

09:00	Welcome / Statement of Goals
09:30	Who is ASAM
10:00	End User Requirement Statements
10:45	Coffee / Networking
11:00	Initial Requirement Analysis (From Detroit)

Agenda

12:00	Lunch
13:00	ASAM Methodology: Steering Committees & Proposal Workshops
14:00	Coffee / Networking
14:15	Discussion / Next Steps
16:00	Planned / End of Day

Why Are We Here?

- Investment efficiency
- Faster cycle time – initial and ongoing
- Enable the best OEM, Tier1/2 and TSP capabilities
- Consistent UX
- Foundation for the future of SaaS
- Customer confidence in system-level security
- While protecting proprietary data and intellectual property

Boundary Conditions

SAE INTERNATIONAL · ISO International Organization for Standardization · IEEE · ETSI World Class Standards · CEN European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung · AUTOSAR

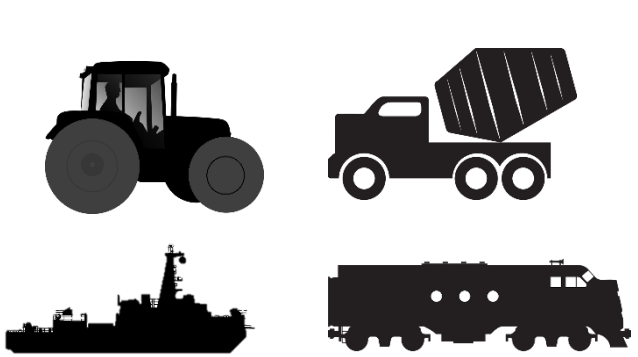
Focus

- V2V, V2X communication and platforms for in use applications
- Sensors to Vehicle Bus to IVI
- Insurance / Warranty Performance
- OTA Updates
- Cybersecurity

ERTICO ITS EUROPE

Focus

- Vehicle Platooning
- Logistics Tracking
- OTA Updates
- Cybersecurity



AgGateway · AEMP Association of Equipment Management Professionals · AEM Association of Equipment Manufacturers · AEF Agricultural Industry Electronics Foundation

Focus

- Business Tracking
- Improved performance
- OTA Updates
- Cybersecurity

ASAM | Association for Standardisation of Automation and Measuring Systems

09:30 Who is ASAM

Minneapolis, MN
14 June 2016

Agenda

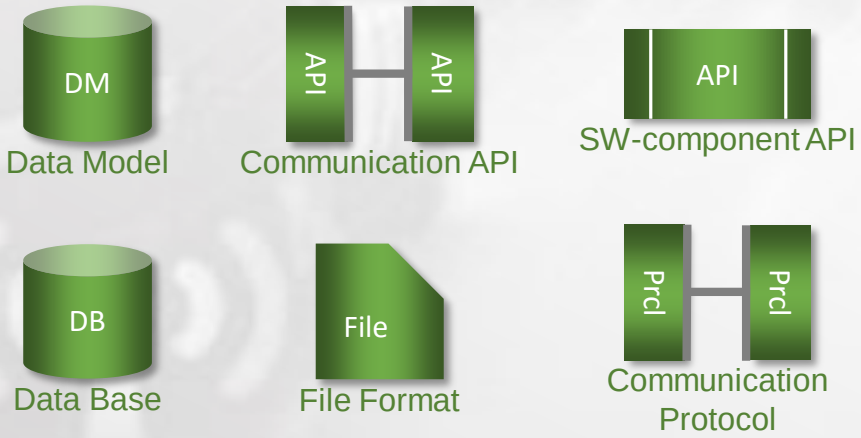
1. 
   Who is ASAM
2. 
   Advantages to working in ASAM
3. 
   ASAM Process
4. 
   ASAM's Role in Today's Workshop
5. 
   Joining ASAM

Who is ASAM

ASAM is an **international community of experts** who understand non-competitive use cases in engineering, simulation, development, testing, and manufacturing.

This community defines standard interfaces and formats for simplifying the data exchange.

Technical Standards focused around:



Measurement & Calibration	ASAM MCD-1 XCP, ASAM MCD-2 MC, etc.
ECU Networks	ASAM MCD-2 NET
Diagnostics	ASAM MCD-2 D (ODX)
Software Development	ASAM MDX, ASAM MBFS, etc.
Test Automation	ASAM MCD-3 MC / D, ASAM XIL, etc.
Data Management & Analysis	ASAM ODS, etc.
Telematics	

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Who is ASAM

Solutions

German Arbeitskreis

5 Directors of Development agree to cooperate with their suppliers.

Audi BMW DAIMLER Porsche VW

1991

ASAM e.V.

Foundation of a registered association

1998

Internationalization

ASAM's community is growing internationally with OEMs, Tier-1s and Tool Vendors joining from

- EU
- Asia
- North America

2008

New Areas for Standardization

- March 31, Telematics Workshop
- Dec. 2015 Conference on „Big Data in Future Car Development"

2016

Challenges

1980 / 90s

- Pressure to cut costs & optimize processes
- Introduction of electronics & computers in development process

➔ **Proprietary test solutions with incompatible interfaces & data formats**

Since 2000

- IoT, Wireless Communication and Autonomous Driving cause the industry to use new technologies

➔ **New challenges arise that require standardized solutions**

Areas of Standardization

- Market Requirements
- Design
- Simulation
- Prototype Manufacture
- Component Test & Calibration
- Vehicle Test, Validation, & Verification
- Field Test & Market Adaptation
- Manufacturing
- In Service
- Field Service / Repair / End of Service

Traditionally, ASAM's technical standards focus on R&D, Testing and Validation. Telematics is the next focus as relating to continuous improvement of products with field data.

Automotive Electronics

- Measurement & Calibration
- ECU Networks
- Diagnostics
- Software Development

Computer Aided Test

- Test Automation
- Data Management & Analysis

Telematics

Problems & Solutions for Standardization

Americas	*Europe*	*Asia*
Antitrust litigation requires standards development organizations for discussion	Business driven decisions have driven lean behavior	*keiretsu*: close-knit networks of vendors that continuously learn, improve, and prosper along with their parent companies

Sponsorship

Leadership

Guidance

Promotion

Advantages to working in ASAM

Proven solutions

End Users & Tool Suppliers at one table

Active community of experts in Measurement & Calibration, Diagnostics and Data Systems

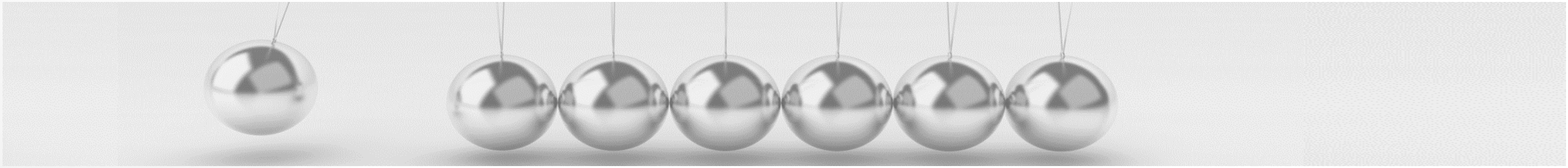
Support from central office

Right size and right community to quickly develop solutions

Requirements driven by Global OEMs / Large Tier 1s

Well established global organization and processes

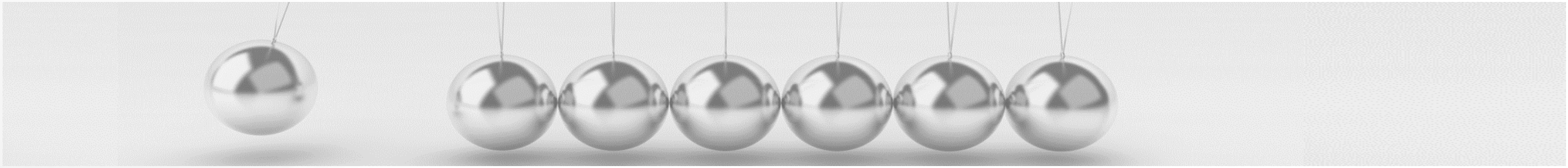
ASAM Process



OPEN FOR INDUSTRY | **ASAM MEMBERSHIP REQUIRED**

Phase I Idea-Creation	Phase II Proposal	Phase III Development	Phase IV Review	Phase V Release
Tasks ▪ New technical domains ▪ Identify business use cases ▪ Market forecast: 5 – 10 yrs. ▪ Assigning resources for work group	**Tasks** ▪ Consolidate requirements into a proposal ▪ Define work packages ▪ Resource commitment	**Tasks** • Development of standard • Documentation of Specification	**Tasks** ▪ Review specification ▪ Last issue fixes	**Tasks** ▪ Publication of Standard ▪ Marketing ▪ Legal Representative
Who All Industry End User Representatives	**Who** ▪ Work group ▪ All Members	**Who** ▪ Work group	**Who** Work group All members	**Who** All Industry End User Representatives

ASAM Process – Goals for Today



Telematics Steering Committee

OPEN FOR INDUSTRY

Goals
- Identify, align, consolidate, and prioritize common mobility industry concerns
- Develop and document business and technical use cases from an End User's point of view

Tasks
- Market forecast
- Understand governmental & business requirements
- Develop business use case scenarios
- Understand technical requirements
- Understand financial impact
- Assign appropriate resources

Automotive OEMs / Tier-1s & TSPs:
Technical engineering management with global profit and loss responsibility

Proposal Workshop

ASAM MEMBERSHIP REQUIRED

Goal
To identify, align, and consolidate technical use cases

Tasks
- Develop requirements
- Investigate new / future technologies
- Plan scope of work for standardization

Automotive OEMs / Tier-1s / Tool Vendors & Telematics Service Providers
Technical engineers

Telematics Steering Group Organization – Role Allocation

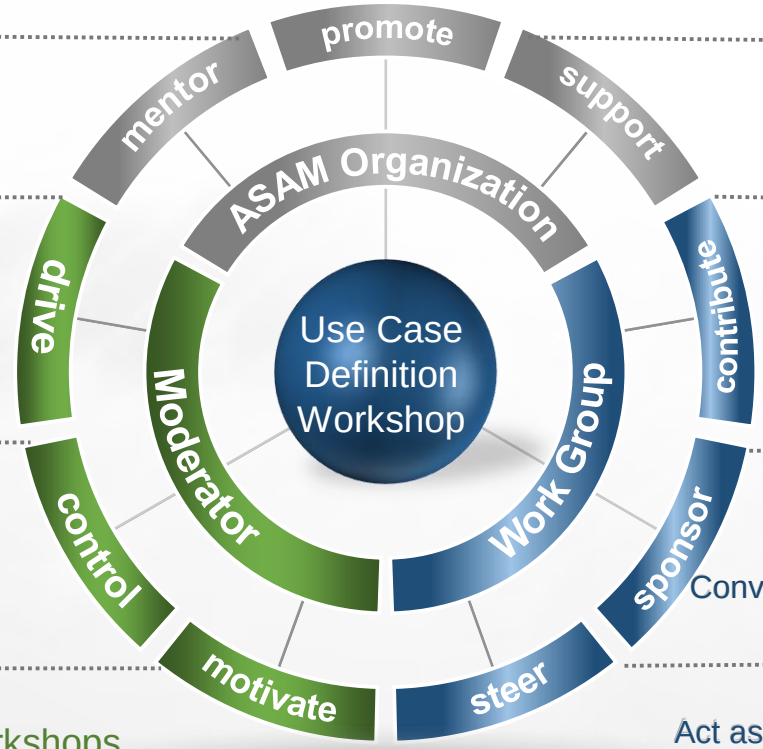
Promote project to global community

Process mentor

Ensure establishment of Team Charter

Operative Planning & Controlling

Make sure that group will steer and sponsor further Proposal workshops



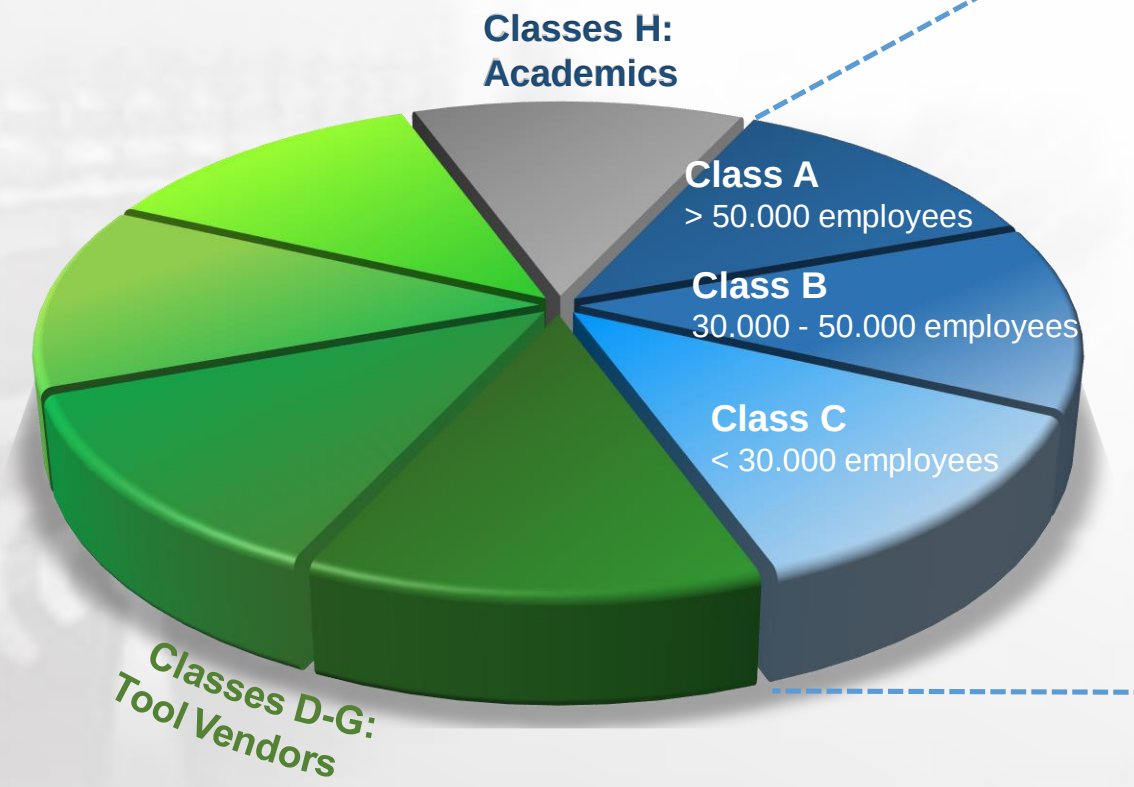
Provide support where necessary

Contribute expert knowledge:
- Use Cases •
- Risks, other standard develpment, etc. •
- Represent your organization •

Sponsor ASAM Activities:
- Engage your engineers in Proposal Workshop •
- Represent project in public •
- Convey ASAM objectives back into your organization •

Steer future ASAM Activities
- Act as group of experts who steer future development •
- Monitor and steer further project activities •

Joining ASAM



End Users (OEMs & Large Tier-1 Suppliers)

Choice: Executive or Passive Membership

	Executive Members	Passive Members	Non-Members
Participation in ASAM standardization projects	✓	✗ (only Ideation, Proposal, Review)	✗ (only Ideation)
Participation in ASAM study groups	✓	✓	✗
Access to the ASAM Community Portal	✓	✓	✗
Able to be elected to Board of Directors	✓	✗	✗
Able to be elected to the TSC	✓	✗	✗
Voting rights at General Assembly	✓✓✓	✓	✗
Free download of standards and software	✓	✓ (software: discounted)	✗

Defining Value in ASAM

For the End User (OEM & Tier 1)…

- Alignment of efforts between government requirements, other SDO efforts and competitors
- Creating a unified list of requirements for TSPs and Tool Suppliers to develop against

For the TSP…

- More consolidated input from OEMs and Tier 1s
- Reduced development requirements
- Reduced integration cycle
- Consistent user experience

For the Tool Supplier…

- More consolidated input from OEMs and Tier 1s
- Reduced development requirements

For ASAM…

- Creating value for stakeholders
- Becoming ever more attractive for non-member End Users

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10:00 End User Requirement Statements

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14 June 2016

Problem Statement Example – Remote Firmware Update

- Deliver consistent user experience while performing remote firmware update on multiple smart devices (control modules), provided by different suppliers, in a vehicle network.
- Why does the problem exist?
  - No standard for the smart / control modules
  - Multiple telematics providers
    - OEMs, 3rd party providers and/or custom solutions for mixed fleets
    - No standard for the telematics hardware and user interface
- Possible solutions
  - Develop proprietary methods and require all suppliers to comply
    - Requires long lead time any time new supplier is introduced
  - Develop an industry standard
    - Need to ensure non-competitive scope

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11:00 Initial Requirement Analysis (From Detroit)

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Initial Requirements Discussion

Participants

DAIMLER, BOSCH, Cummins, NAVISTAR, Continental, EATON, PACCAR, Allison Transmission, WABCO, mtu, CT UNLOCKING THE POWER OF DATA, RICARDO, SBD

Process

① Polled for top "Business Use Cases"
② Prioritized based on votes
③ Aligned for duplication
④ Discussed top 4 in detail

Initial Requirements Discussion

Priority	Use Case
1	Standard format for exchange / storage of telematics data to enable efficient integration of backend systems and analytics
2	Remote Programming
3	Pre-analytics before sending to cloud / optimizing diagnostics & prognostics
4	Standardized method for authenticating and authorizing a telematics box to communicate with a controller

5	Standard way of 2-way proprietary data exchange (Parameters Calibrations software) in a secured manner
6	Remote Diagnostics
7	HD trucks have multiple networks: ECUs Need standard for how different ECUs / networks will connect and what data is available
8	A common telematics box hardware platform on which service providers can build their services
9	How to lower cost for getting data into cloud hardware software transmission etc.
10	How to minimize transmission of data reduce cost compress etc.
11	Individual Subsystems 3rd Party Systems Who owns data how is data transferred between the multiple systems
12	Standards for hardening a telematics device against unauthorized remote access to prevent rogue datalink communications
13	Intrusion detection system on vehicles and reporting
14	Driver vehicle use monitoring information for fleets OEs and Tiers
15	How do we work with ISO20078 community?
16	How to keep anonymous data anonymous
17	A standard for exchanging, processing, and distributing data for the purpose of self-learning - ADAS and autonomous systems
18	Geo-fencing / Route Tracing / GPS Data Logging / Build Specification of equipment

Group 1: Cloud Interface

USE CASE TITLE									
Problem statement	Standard method to interface at the cloud (ex: cloud to cloud) to enable faster implementation, reduce work, etc. Included methods to publish enriched data make to clouds (TSPs, OEMs, Fleet Management Systems)								
Additional details and benefits (user stories)	Cloud to cloud data exchange; Cloud to Tool (Matlab) Community data (GPS, DM1, engine speed, etc); Proprietary data (method to get at this data - including security) Methods to get data: JSON, XML, API (or Quee) Security standard; Who can access data (Goverment agencies?) Access to data - different levels of data based on who owns it or grants access to it; data scrubbing;								
Other organizations doing similar work	OpenAPI spec; TMC?, LD ISO20078 (extended vehicle data)								
Existing standards that may be impacted	ODS, Right to repair,								
Please describe possible impact to vehicle electronics	Multiple engine applications, may drive way to get data from all								
Impact to "telematics box" and HMI	TSPs in vehicle box needs to support the meta data; usually a single CAN port, depends on data needs								
Impact to Cloud	Yes, see above								
Impacted Market/Applications/Segment	x	**On Highway**	x	**Off Highway**	x	**Passenger Car**	Marine, Industrial	**Other / specifics**	
Areas of concern	Data ownership, how is a company authorized								
Who should be involved?	**Company names**		**Primary contact names**		**Primary contact details**		**If not present, who will reach out?**		
OEMs	Navistar, PACCAR								
Tier 1s	Cummins, Eaton								
Telematics Providers	Omnitracs:Zonar:PeopleNet:Geo Tab, etc								
Fleets	Swift								
Others	ETI, Conti, CTE/Delphi								
Company willing to lead a workgroup	?								
Other comments									

Group 2: Authentication

AUTHENTICATION STANDARDIZATION FOR ONBOARD TCU INTERACTION WITH VEHICLE COMPONENT CONTROL UNITS									
Problem statement	How can the onboard telematics control unit (TCU) communicate bi-directionally in a secure way with all of the vehicle's onboard controllers?								
Additional details and benefits (user stories)	1. Multiple tiers of authentication may be necessary depending on the classification of the vehicle data; i.e. publicly available data would have a lower (potentially none) authentication mechanism versus OEM proprietary signals. 2. Source address "spoofing" is problematic (TCU identifying themselves as other controllers) 3. The group feels that this is a requirement for Over-The-Air (OTA) update of vehicle control units 4. Adoption of the standard here helps minimize investment; maximizes the value of the investment, and improves serviceability and sustainability over time 5. Minimize product liability and risk for those adopting the standard								
Other organizations doing similar work	None to the group's knowledge; may be possible to use some evolving IoT methods to accomplish; investigate best practice with passenger car OEMs; Secure CAN working group--does this include any authentication?								
Existing standards that may be impacted	Source address validity could impact SAE J1939								
Please describe possible impact to vehicle electronics	Very high likelihood that there are impacts to EE architecture (busload) that must be considered when developing the authentication method.								
Impact to "telematics box" and HMI	HMI little to none; TCU would require compliance with the recommendations of this standard								
Impact to Cloud	Strictly an onboard issue								
Impacted Market/Applications/Segment	X	**On Highway**	X	**Off Highway**	X	**Passenger Car**	Marine and Industrial Usage		**Other / specifics**
Areas of concern	V2V and V2I implications? Will the TSPs accept? Backward compatibility? Encryption overhead to data payload for authentication session								
Who should be involved?	**Company names**		**Primary contact names**		**Primary contact details**		**If not present, who will reach out?**		
OEMs	Mandatory for all segments		Larry Hilkene						
Tier 1s	Mandatory (min. powertrain, vehicle control systems suppliers)								
Telematics Providers	Mandatory								
Fleets	Optional								
Others	N/A								
Company willing to lead a workgroup	Cummins								
Other comments	N/A								

Group 3: OTA Updating

group 3 remote programing									
Problem statement	Remote Programing								
Additional details and benefits (user stories)	Over the air updates of software, calibration and configurations. From and OE perspective the ideaa of controling overall vehicle configuration is important, specifically a comptibility check. Question on Fleet as the owner and Driver as a user to their involvement and responsabilites. The need for a gatway module to protect secific comm lines has been idnetified as a key topic								
Other organizations doing similar work	UMTRI, is looking at automotive update, the feeling of the group is that this topic of FOTA standards is late and needs to speed up to be effective								
Existing standards that may be impacted	potential RP1210 or UDS but no direct conflict.								
Please describe possible impact to vehicle electronics	Decreased cost of operation,customer satisfaction increase, new revenue streams and a way of doing business that may not be known today.								
Impact to "telematics box" and HMI	The reality of supporting multiple module rev levels and the interdependancies that exisit.The concern of supporting multiple engine / trans and support systems that may require independent update. Managing the complexity offboard and on board deployment.								
Impact to Cloud	Bandwith concerns								
Impacted Market/Applications/Segment	x	**On Highway**	x	**Off Highway**	x	**Passenger Car**			**Other / specifics**
Areas of concern	End to end security, reliabilty , configuration								
Who should be involved?	**Company names**		**Primary contact names**		**Primary contact details**		**If not present, who will reach out?**		
OEMs	the usual suspects								
Tier 1s									
Telematics Providers									
Fleets	owner operators and Fleets								
Others									
Company willing to lead a workgroup									
Other comments	The telematics box must be able to run proprietary logic. Concern over current spec and future product								

Group 4: Box Requirements

USE CASE TITLE									
Problem statement	What standards should telematics hardware providers comply with.								
Additional details and benefits (user stories)	Advantages of widespread adoption of standard APIs & common libraries to enable - data exchange (between ECUs, between the telematics HW & ECUs, TPS HW & back-end systems) - on board processing - Security - necessary authorization/authentication provided by ECU suppliers - providers need to provide a layer that abstracts the APIs from the OS - portability of the application layer								
Other organizations doing similar work	Example: Genivi, a colloboration among passenger car OEMs - focus on infotainment. FMS standard, an API used in commercial vehicles								
Existing standards that may be impacted	CAN/j1939, limited bandwidth to implement security. Ethernet (Broad R reach). ODX / OTX for diagnostic test sequences, ISO2 6262, AutoSAR								
Please describe possible impact to vehicle electronics									
Impact to "telematics box" and HMI	Formulating standard APIs & common libraries.. For data exvhange & common features. Wi-Fi capabilies / BT. De-emphasis on HMI device techology.								
Impact to Cloud									
Impacted Market/Applications/Segment	X	**On Highway**	X	**Off Highway**	X	**Passenger Car**		**Other / specifics**	
Areas of concern	Buy-in from telematics providers. Tendency among OEMs to retain proprietary methods. Abilty to form collaborations.								
Who should be involved?	**Company names**		**Primary contact names**		**Primary contact details**		**If not present, who will reach out?**		
OEMs	Leading CV & aumotive suppliers								
Tier 1s	Critical								
Telematics Providers	Critical								
Fleets									
Others									
Company willing to lead a workgroup	Each are willing to participate.								
Other comments									

- Group is interested in proceeding to standardize aspects of the “telematics” 2 way communication
  - Many use cases identified, with top 3 to start with being:
    - Standard format for exchange of telematics data to enable efficient integration of backend systems and analytics
    - Standardized method for authenticating and authorizing a telematics box to communicate with a controllers
    - Remote Programming
  - May need to split up the work into smaller parts
  - Telematics provider participation is critical
    - Next step is to approach telematics providers (all of us together)
    - ASAM will prepare a presentation that we could share with the telematics providers
    - ASAM to host a meeting with TSPs as selected/proposed by the OEMs/Tier1s/2s
  - Need to establish a group to coordinate/prioritize the work going forward – worldwide
  - We need to actively coordinate/partner with other organizations and groups
- Method of communication between the group?
  - Email
  - ASAM website (asam.net)
  - Other?

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13:00 ASAM Methodology: Steering Committees & Proposal Workshops

Minneapolis, MN
14 June 2016

ASAM Organization and Committees

Board of Directors	2015-2017 BMW Cummins Daimler HORIBA	Strategy Projects Cooperations Marketing Projects
ASAM Office	Managing Director Business Development Manager Global Technology Manager Marketing Manager Representative in Japan Office Manager	Align Members Promote Discussions Mentor Processes Provide Office Support (Financial, IT, etc.)
Technical Steering Committee	2016-2018 AUDI AG AVL List GmbH Continental Automotive GmbH dSpace GmbH Emotive GmbH ETAS GmbH National Instruments Peak Solution GmbH Robert Bosch Engineering Softing Automotive Electronics GmbH	Harmonizes Processes and Standards Reviews and Approves Proposals and Funding Provides Project Oversight Reviews and Approves Standards

ASAM Organization and Committees

Board of Directors

ASAM Office

Technical Steering Committee

Dr. Klaus Estenfeld
Managing Director

Mr. Joseph Sparacino
Business Development Manager

Mr. Thomas Thomsen
Global Technology Manager

Mr. Yoshiaki Shoi
Representative in Japan

Ms. Dorthée Bassermann
Marketing Manager

Ms. Katharina Löburg
Office Manager

CAT Steering Committee

AE Steering Committee

Telematics Steering Committee

ASAM Organization and Committees

Board of Directors

ASAM Office

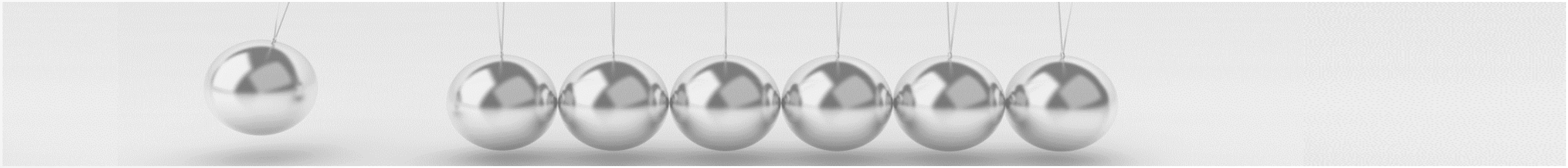
Technical Steering Committee

US Telematics Steering Committee

EU Telematics Steering Committee

JP Telematics Steering Committee

ASAM Process – Goals for Today



Telematics Steering Committee

OPEN FOR INDUSTRY

Goals
- Identify, align, consolidate, and prioritize common mobility industry concerns
- Develop and document business and technical use cases from an End User's point of view

Tasks
- Market forecast
- Understand governmental & business requirements
- Develop business use case scenarios
- Understand technical requirements
- Understand financial impact
- Assign appropriate resources

Automotive OEMs / Tier-1s & TSPs:
Technical engineering management with global profit and loss responsibility

Proposal Workshop

ASAM MEMBERSHIP REQUIRED

Goal
To identify, align, and consolidate technical use cases

Tasks
- Develop requirements
- Investigate new / future technologies
- Plan scope of work for standardization

Automotive OEMs / Tier-1s / Tool Vendors & Telematics Service Providers
Technical engineers

Telematics Steering Group Organization – Role Allocation

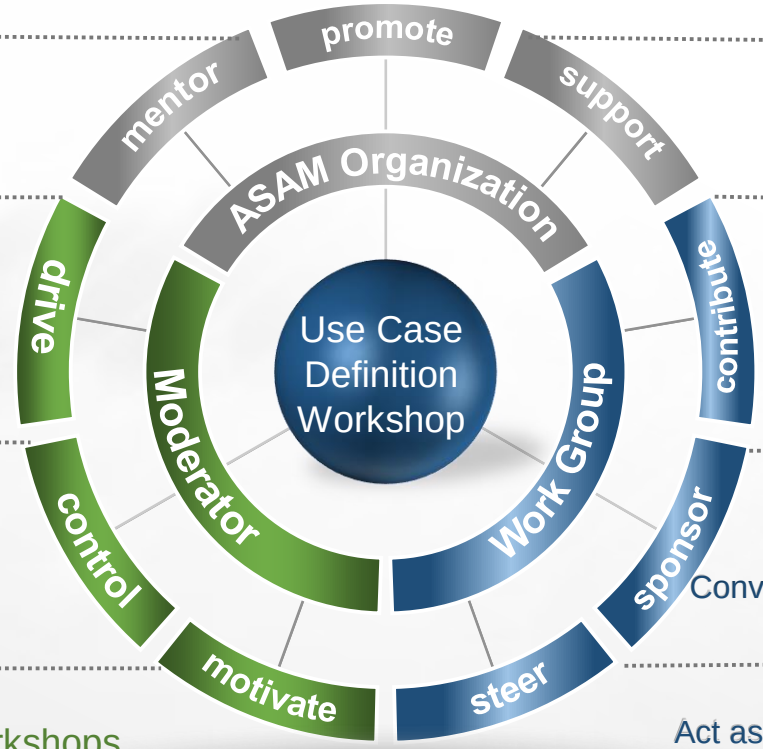
Promote project to global community

Process mentor

Ensure establishment of Team Charter

Operative Planning & Controlling

Make sure that group will steer and sponsor further Proposal workshops



Provide support where necessary

Contribute expert knowledge:
- Use Cases •
- Risks, other standard develpment, etc. •
- Represent your organization •

Sponsor ASAM Activities:
- Engage your engineers in Proposal Workshop •
- Represent project in public •
- Convey ASAM objectives back into your organization •

Steer future ASAM Activities
- Act as group of experts who steer future development •
- Monitor and steer further project activities •

Typical Roles – Telematics Steering Committee

Does not need to be an ASAM Member

Committee Leader

- Elected by work group
- Sets the meeting agenda, organizes and manages the group, moderates the meetings
- Reports progress to TSC and ASAM Office
- Depending, might be focal point for international Telematics Steering Committees

Committee Members

- Provides use-cases, application, & process knowledge and requirements
- Provides technical expertise
- Helps identify new efforts and lead discussions on how to harmonize with other SDOs
- Helps identify new opportunities initiated by the industry, by the governments, by other industries
- Champions ASAM in their own company and provides resources for ASAM activities

Note Taker, Moderator, Host

- Usually separate functions, but can be combined with Committee Leader
- Hosting is usually rotated amongst members

Time Commitment

- Dependent on the role, the frequency of the meetings, and the discussions
- Depending on organization and topics possibly 1 day per quarter (guess at this time)

Tools

- ASAM WebEx
- ASAM Community

Meeting Location

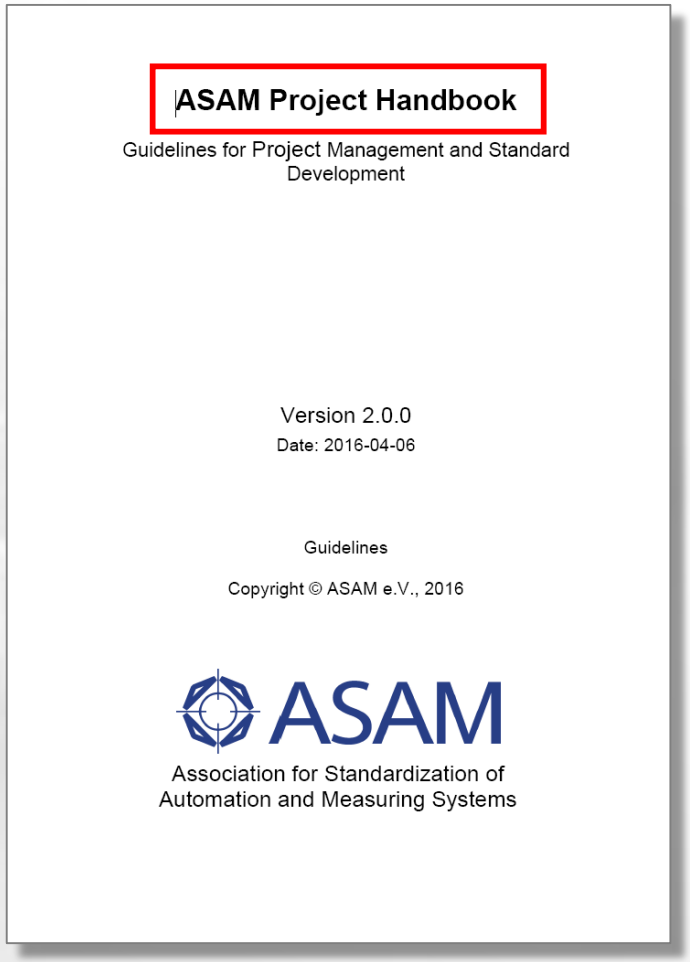
Telematics Steering Committee Team Charter

Team Goal(s):	• To identify, discuss, align, consolidate and document Business 'Use Cases' in the area of Telematics as relating to Power Generation whether mobile or stationary • To decide if this committee only reviews CV On-Road, Off-Road, or also includes Pass Car and how to work with global organizations • To watch developments in government, in business needs, in other SDOs as relating to the needs of this group • To partner with other organizations efforts where required • To develop an action plan convert Business Use Case to identifying Technical Problems and a team to address the Technical Problems • …
Steering Committee Leader:	XXX XXX (Person), XXXX (Organization) Rules: 1. How often is a new Project Leader put into place 2. How is this person selected / elected…
Steering Committee:	• Organizations, and specific people involved in this effort • Roles of people – Sponsoring employees, travel, meeting locations • How to grow the team • …
Team Topics:	Identified by Business Use Cases, outside "disruptors" (from government initiatives, other industries, etc.), and alignment with other SDO's
Process	From Requirements Analysis to Project Proposal
Communication	Global group vs. regional group Communication Process with View to Global

Telematics Steering Committee Sign Up

Team Members:	
Project Leader:	
Date:	
Location:	
Communication Method:	

ASAM Process



ASAM Project Handbook

Guidelines for Project Management and Standard Development

Version 2.0.0

Date: 2016-04-06

Guidelines

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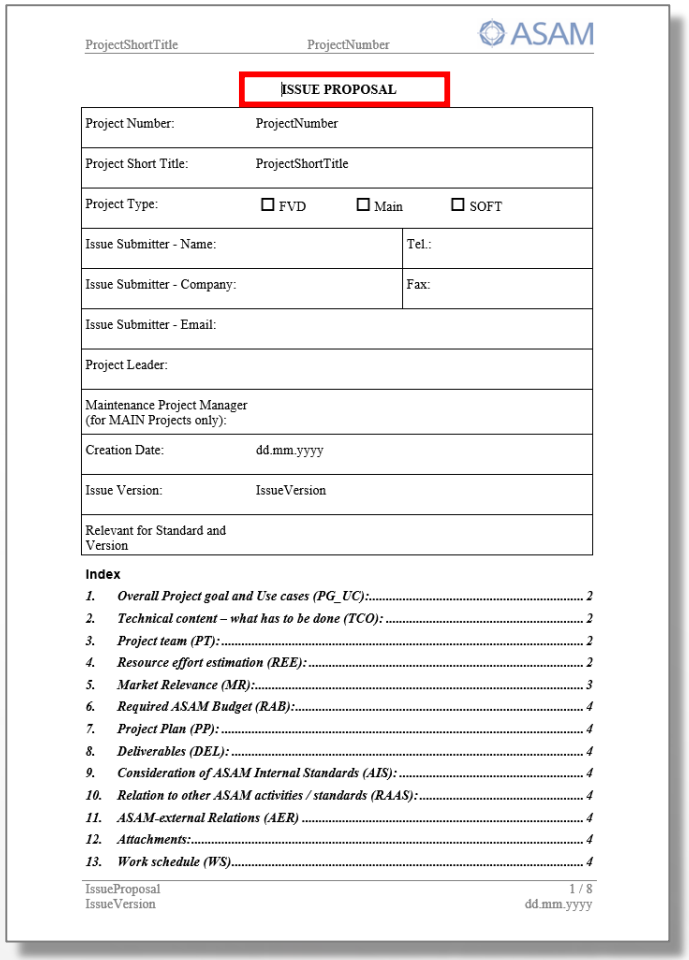

ProjectShortTitle ProjectNumber ASAM

ISSUE PROPOSAL

Project Number:	ProjectNumber
Project Short Title:	ProjectShortTitle
Project Type:	☐ FVD ☐ Main ☐ SOFT
Issue Submitter - Name:	Tel.:
Issue Submitter - Company:	Fax:
Issue Submitter - Email:	
Project Leader:	
Maintenance Project Manager (for MAIN Projects only):	
Creation Date:	dd.mm.yyyy
Issue Version:	IssueVersion
Relevant for Standard and Version	

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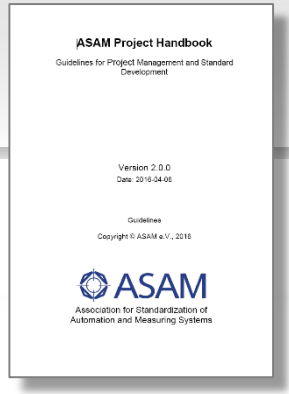
http://www.asam.net/home/asam-projects/tools-for-standardization.html

ASAM | Association for Standardisation of Automation and Measuring Systems

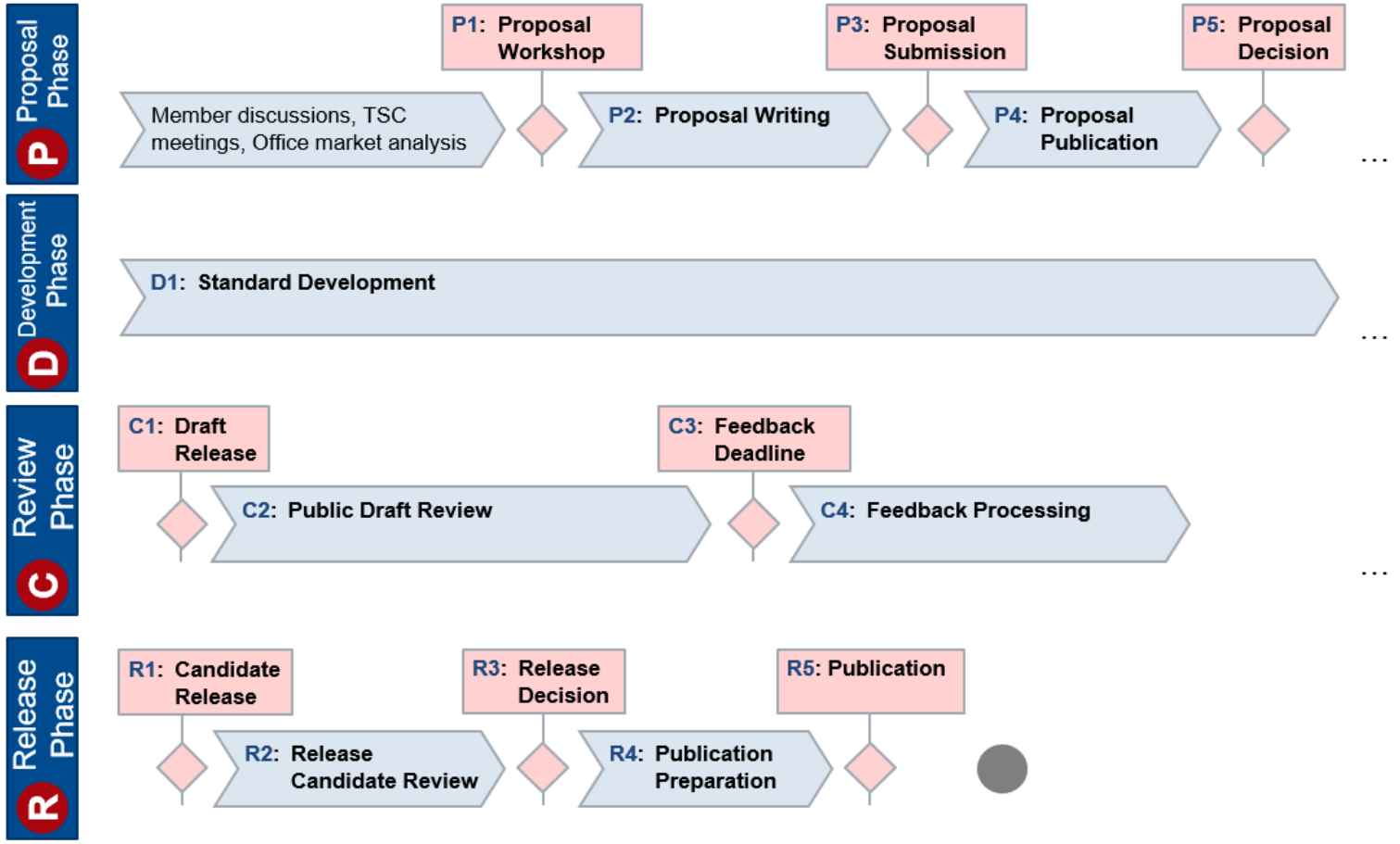


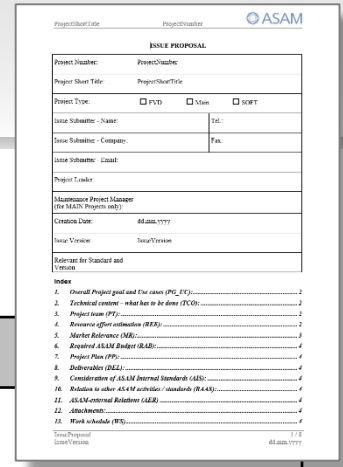
ASAM Project Handbook

4 Types of Projects

- Standard Development Projects
  - New Standard Development
  - Revision Development
- Implementation Project
  - Supports the development of standard-based, commercial products (e.g. development tool kit)
  - Reduces the development costs of commercial products (e.g. source code)
  - Tests standard compliance of commercial products (e.g. checker tool, test suite, source code)
- Concept Project
  - Provides justification or proof for the usefulness, practicability and feasibility of the proposals
    - Feasibility Studies, Requirements Evaluation, Technology Surveys, Prototype Development, Performance Benchmarks…
- Study Projects
  - Provides an organizational structure to study or analyze specific aspects of ASAM standards in a collaborative way

Standard Development Process




ASAM

ISSUE PROPOSAL

Project Number:	ProjectNumber
Project Short Title:	ProjectShortTitle
Project Type:	☐ FVD ☐ Main ☐ SOFT
Issue Submitter - Name:	Tel.:
Issue Submitter - Company:	Fax:
Issue Submitter - Email:	
Project Leader	
Maintenance Project Manager (for MAIN Projects only)	
Creation Date:	dd.mm.yyyy
Issue Version:	IssueVersion
Relevant for Standard and Version	

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1. Overall Project goal and Use cases (PG_UC): 2
2. Technical content – what has to be done (TCO): 2
3. Project team (PT): 2
4. Resource effort estimation (REE): 2
5. Market Relevance (MR): 3
6. Required ASAM Budget (RAB): 3
7. Project Plan (PP): 4
8. Deliverables (DEL): 4
9. Consideration of ASAM Internal Standards (AIS): 4
10. Relation to other ASAM activities / standards (RAAS): 4
11. ASAM-external Relations (AER) 4
12. Attachments: 4
13. Work schedule (WS): 4

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IssueVersion dd.mm.yyyy

Proposal Form

No.	Title	Description
1	Overall Project Goal and Use Cases	This section documents the idea, purpose, advantages and reasons for the project and clearly describes covered use Cases, the application area and business benefit.
2	Technical Content	The technical scope of work to be done
3	Project Team	The names, titles, company and contact detail for the project team
4	Resource Cost Estimation	The estimation of effort expressed in man-days for Project Co-ordination and Management, Meeting Participation, Definition of Requirements, Technical Specification, Documentation, Testing and Verification, Example Code, etc.
5	Market Relevance	The committal of work time or money from each organization
6	Required ASAM Budget	The additional funding that is required from ASAM
7	Project Plan	Project Plan expressed in MD, defining tasks, milestones, and intermediate deliverables
8	Deliverables	This section lists the items to be delivered / project results. Beside the deliverables the Release Presentation, the publication for the ASAM Newsletter and the text for the ASAM website and the solution guide are expected for a release.
9	Consideration of ASAM Internal Standards	This section documents any references to published ASAM Standards.
10	Relation to other ASAM activities / standards	This section documents any potential overlaps, conflicts, and interactions with other ASAM project groups or existing standards.
11	ASAM-external Relations	This section documents any potential overlaps, conflicts, and interactions with other Standardization Development Organizations
12	Attachments	Other documents requiring attachment
13	Work Schedule	The Project Plan defined as a Gantt Chart.

Typical Roles – Proposal Workshop

Needs to be an ASAM Member

Proposal Leader

- Elected by work group or proposed by the Telematics Steering Committee
- Sets the meeting agenda, organizes and manages the group, moderates the meetings
- Works directly with Thomas Thomsen, Global Technology Manager
- Presents proposal to the TSC
- Sometimes (not always) continues as Project Leader, but this is elected by Workgroup

Proposal Members

- Provides use-cases, application, & process knowledge and requirements
- Provides technical expertise
- Contributes to the proposal
- Champions ASAM in their own company and provides resources for ASAM activities

Proposal Author, Moderator, Host

- Usually separate functions, but can be combined with Proposal Leader
- Hosting is usually volunteered

Time Commitment

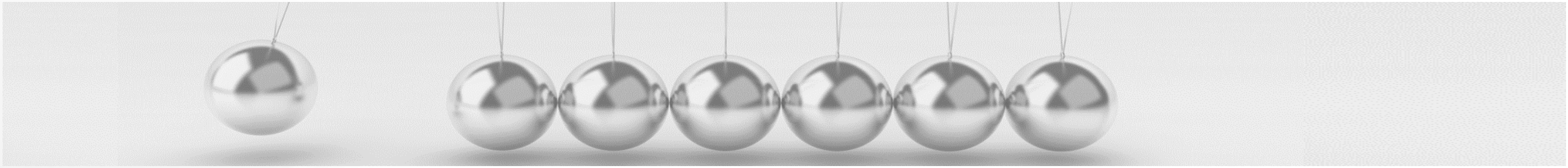
- Usually one or two one-day meetings to create proposal
- The proposal group usually continues on into Project (when approved) and sometimes new members will add. Depending on scope and on agreement, might be up to 12 man days per year.

Tools

- ASAM WebEx
- ASAM Community

Meeting Location

ASAM Process – Goals for Today



Telematics Steering Committee

OPEN FOR INDUSTRY

Goals
- Identify, align, consolidate, and prioritize common mobility industry concerns
- Develop and document business and technical use cases from an End User's point of view

Tasks
- Market forecast
- Understand governmental & business requirements
- Develop business use case scenarios
- Understand technical requirements
- Understand financial impact
- Assign appropriate resources

Automotive OEMs / Tier-1s & TSPs:
Technical engineering management with global profit and loss responsibility

Proposal Workshop

ASAM MEMBERSHIP REQUIRED

Goal
To identify, align, and consolidate technical use cases

Tasks
- Develop requirements
- Investigate new / future technologies
- Plan scope of work for standardization

Automotive OEMs / Tier-1s / Tool Vendors & Telematics Service Providers
Technical engineers

ASAM | Association for Standardisation of Automation and Measuring Systems

14:15 Discussion / Next Steps

Minneapolis, MN
14 June 2016

Telematics Steering Committee Sign Up

Team Members:	
Project Leader:	
Date:	
Location:	
Communication Method:	