**=‘ ‘ ‘Automotive Ontology Community Group Charter’ ‘ ‘=**

The aim of the W3C Automotive Ontology Community Group is to facilitate the development of web ontologies that define and describe shared conceptual structures in the automotive industry. The first step in this development, an automotive extension proposal for schema.org is now in the process of finalization. The most important properties and classes have already become part of schema.org 2.0 core on May 13, 2015. The finalization of a first version of the extension at[ [http://auto.schema.org](http://auto.schema.org/) ] as a "reviewed/hosted extension" is expected soon.

The scope of the first set of concepts, those in schema.org core and in the auto.schema.org extension includes terms that describe vehicles from the sales or automotive market perspective.

Using this baseline scope, the community group intends to grow theses automotive ontologies both horizontally – by adding new important types and properties related to the market perspective of autos, essentially amending the auto.schema.org extension, and vertically – by adding other types and properties describing additional aspects of cars~~,~~ such as vehicle configuration and “buildability” information, vehicle lifetime aspects, or vehicle data backbone aspects - covering the new realities of “connected cars”, autonomous cars etc.

The open source ontology (or ontologies) to be developed, have inherited the code name GAO – Generic Automotive Ontology (and its URI:[ <http://purl.org/gao> ]) from the informal group of individuals and corporations that worked on it since the Fall of 2013.

The ontologies developed in this work may be voted on by its members to be submitted for inclusion into future versions of the auto.schema.org extension, external extensions or become subject of other standardization efforts with relevant standardization bodies.

The solutions developed in this group may be voted on by its membership via decision-making approaches described by W3C, IETF, or similar standardization bodies. The charter can be revised by a majority vote of the Community Group.

The key considerations are:

#The overall goal of GAO, including the selection and balance between initially proposed aspects of the automotive industry to be reflected in GAO ontologies.

#The scope of work

#Deliveries and roadmap

#Dependencies and liaisons

#Community Group processes (including tools)

**==‘ ‘ ‘Overall goals of GAO’ ‘ ‘==**

The fundamental goal of the family of GAO ontologies is to create a common conceptual framework for information sharing and data exchange for the benefit of the automotive industry and the benefit of industries related to the automotive industry, including but not limited to the insurance industry, media and marketing industry, transportation infrastructure industry (road systems) etc.

To achieve this goal the community will:

#Clearly define the key components of GAO, initially including:  
#’ ‘ ‘**GAO Compatibility:’ ‘ ‘** A schema.org-compliant ontology for vehicle configuration information.  
#’ ‘ ‘**GAO Vehicle Lifetime Information:’ ‘ ‘** A schema.org-compliant ontology for vehicle life-time information.  
# ‘ ‘ ‘**GAO Vehicle Data Backbone:’ ‘ ‘** An ontology for information interchange within a vehicle, between vehicles, and between vehicles and their external entities. The community may propose different set of key components for GAO or add new components.

#Collect and describe the use cases of the GAO ontologies

#Review the existing schema.org extensions (core and auto.schema.org)

#Review existing standards, publicly available taxonomies and vocabularies

#Propose the amendment of auto.schema.org

#Build prototypes of respective GAO ontologies

#Submit the proposals of subsets of respective GAO ontologies to the auto.schema.org extension.

#Develop materials describing the ontologies

#Develop a set of implementation recommendations for future users of GAO ontologies

#Identify opportunities for fostering the broad adoption of GAO ontologies

#Engage the developer community to use GAO ontologies in the software

**==‘ ‘ ‘Roadmap’ ‘ ‘==**

The following initial roadmap has been envisioned and shall be discussed in the first community group teleconferences. This roadmap contains milestones from the work inception to the delivery of GAO prototypes, and covers the time span from July 2015 to March 2016.

The further works will be defined at the end of this period.

#The first teleconference – initial plan for week 29 (July 13-17, 2015) – final details to be agreed

#Review of existing schema.org extensions – September 2015

#Review of existing standards – September 2015

#Definition of the key components of GAO – October 2015

#Collection of GAO use cases – November 2015

#Creation of the first GAO prototypes – February 2016

#Creation of the final report – March 2016

**==‘ ‘ ‘Scope of Work’ ‘ ‘==**

This section contains a brief overview of the works planned in the roadmap.

**===‘ ‘ ‘Review of the existing schema.org extension’ ‘ ‘===**

The team that proposed the existing schema.org extension, with possible participation of the schema.org team members will present the existing extension, their motivations and decisions and will open the discussion about potential changes and additions to the extension. As the result of these actions, an amendment proposal may be presented by the community to the schema.org team.

**===‘ ‘ ‘Review of existing standards’ ‘ ‘===**

The members of the community will present existing standards related to scope of GAO. The standards may include but will not be limited to lexicons of standards like ISO-10303 STEP AP 214[1], existing ontologies like Vehicle Sales Ontology – VSO[2] , Car Options Ontology – COO[3], Volkswagen Vehicle Ontology – VVO[4], Used Cars Ontology – UCO[5] or 'Configuration as Linked Data' ontology[6] etc. To broaden the scope of existing standards the community members will appoint the other known standards and ontologies relevant for GAO.

**===‘ ‘ ‘Definition of the key components of GAO’ ‘ ‘===**

The community will discuss and decide about the scope of the component of GAO ontologies. The ideas underlying the initially proposed components (described in this document in the “Overall Goals of GAO” section 1.a-c) will be discussed and agreed upon or modified. Possible other components will be added.

**===‘ ‘ ‘ Collection of GAO use cases’ ‘ ‘===**

The community members will collect the real and possible use cases of GAO ontologies. The real use cases may contain existing implementations of schema.org extensions developed in the framework of GAO. The future use cases will form a kind of “thought experiments” helping to shape the GAO components.

**===‘ ‘ ‘Creation of the first GAO prototypes’ ‘ ‘===**

Selected community members of some appointed third party will build GAO prototypes (as OWL ontologies, serialized as Turtle and JSON-LD) accompanied by appropriate visualizations to help in the presentation of the prototypes. For schema.org extension amendments the canonical representation will be used (RDFa).

**‘ ‘ ‘Final report’ ‘ ‘**

The final report of the currently planned works will be created and submitted by the community group chair and submitted to W3C after all corrections and community-wide discussion.

**===‘ ‘ ‘Future works’ ‘ ‘===**

The intention of GAO community is to continue the work beyond GAO prototypes. The respective new goals and the scope of work will be formulated after the final report submission.

**==‘ ‘ ‘Dependencies or Liaisons’ ‘ ‘==**

We have identified the following projects/initiatives relevant to the scope of GAO:

#W3C Automotive Working Group ([<http://www.w3.org/auto/wg/>]), which mission is to develop Open Web Platform specifications for developers writing applications for in-vehicle infotainment systems and vehicle data access protocols.

#Automotive and Web Platform Business Group ([<https://www.w3.org/community/autowebplatform/>]), which mission is to influence the Open Web Platform on the unique needs of the automotive industry, and to help stakeholders within the automotive industry to build a good and practical understanding on the standardization processes within the W3C.

#AutoAlliance ([<http://www.autoalliance.org/>]), The Alliance of Automobile Manufacturers (Auto Alliance) calls itself “the voice for a united auto industry”. They promote sustainable mobility and benefit society in the areas of environment, energy and motor vehicle safety.

#Automotive Industry Action Group ([<https://www.aiag.org/>]) - AIAG - is a not-for-profit association where professionals from a diverse group of stakeholders – including retailers, suppliers of all sizes, automakers, manufacturers, service providers, academia, and government – work collaboratively to streamline industry processes via global standards development & harmonized business practices.

#The European Automobile Manufacturers' Association ([<http://www.acea.be/>]) – ACEA - represents the 15 Europe-based car, van, truck and bus makers. ACEA works with a variety of institutional, non-governmental, research and civil society partners - as well as with a number of industry associations with related interests.

**==‘ ‘ ‘ Community and Business Group Process’ ‘ ‘ ==**

Anything in this charter that conflicts with requirements of the Community and Business Group Process is void. ‘ ‘ ‘**Choosing a Chair’ ‘ ‘** This group chooses their Chair(s) and can replace the Chair(s) at any time using whatever means they prefer. However, if 5 participants – no two from the same organization – call for an election, the group must use the following process to replace any current Chair(s) with a new Chair, consulting the Community Development Lead on election operations (e.g., voting infrastructure and using [[RFC 2777](https://tools.ietf.org/html/rfc2777)]). Participants announce their candidacies. Participants have 14 days to announce their candidacies, but this period ends as soon as all participants have announced their intentions. If there is only one candidate, that person becomes the Chair. If there are two or more candidates, there is a vote. Otherwise, nothing changes. Participants vote. Participants have 21 days to vote for a single candidate, but this period ends as soon as all participants have voted. The individual who receives the most votes – no two from the same organization – is elected chair. In case of a tie, RFC2777 is used to break the tie. An elected Chair may appoint co-Chairs. Participants dissatisfied with the outcome of an election may ask the Community Development Lead to intervene. The Community Development Lead, after evaluating the election, may take any action including no action. ‘ ‘ ‘**Decision process’ ‘ ‘** This group will seek to make decisions when there is consensus. When the group discusses an issue on the mailing list and there is a call from the group for assessing consensus, after due consideration of different opinions, the Chair should record a decision and any objections. Participants may call for an online vote if they feel the Chair has not accurately determined the consensus of the group or if the Chair refuses to assess consensus. The call for a vote must specify the duration of the vote which must be at least 7 days and should be no more than 14 days. The Chair must start the vote within 7 days of the request. The decision will be based on the majority of the ballots cast. It is the Chair’s responsibility to ensure that the decision process is fair, respects the consensus of the CG, and does not unreasonably favor or discriminate against any group participant or their employer.’ ‘ ‘**Transparency’ ‘ ‘** The group will conduct all of its technical work on its public mailing list. Any decisions reached at any meeting are tentative and must be confirmed on the mail list. ‘ ‘ ‘**Amendments to this Charter’ ‘ ‘** The group can decide to work on a proposed amended charter, editing the text using the Decision Process described above. The decision on whether to adopt the amended charter is made by conducting a 30-day vote on the proposed new charter. The new charter, if approved, takes effect on either the proposed date in the charter itself, or 7 days after the result of the election is announced, whichever is later. A new charter must receive 2/3 of the votes cast in the approval vote to pass. The group may make simple corrections to the charter such as deliverable dates by the simpler group decision process rather than this charter amendment process. The group will use the amendment process for any substantive changes to the goals, scope, deliverables, decision process or rules for amending the charter.

**==‘ ‘ ‘Charter's Revisions:’ ‘ ‘==**

1. See [[https://www.w3.org/wiki/index.php?title=GAO\_Community\_Charter&action=history]]

**==‘ ‘ ‘References:’ ‘ ‘==**

[1] – [<http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=38727>]  
[2] – [<http://www.heppnetz.de/ontologies/vso/ns>]  
[3] – [<http://www.volkswagen.co.uk/vocabularies/coo/ns>]  
[4] – [<http://www.volkswagen.co.uk/vocabularies/vvo/ns>]   
[5] – [<http://ontologies.makolab.com/uco/ns.html>]   
[6] – [<http://purl.org/configurationontology>]