

## *Terms of Reference*

# **Connected & Automated Vehicles Task Force**

*Approved by the Board of Directors on September 24, 2019*

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### **MANDATE**

The Connected & Automated Vehicles (CAV) Task Force is a forum for dialogue and collaboration among transportation system owner-operators, regulatory bodies, private businesses, industry organizations, and academia. Its overarching purpose is to help TAC members respond to and benefit from the development and application of connected vehicle and automated vehicle (CV/AV) technologies, with an emphasis on optimizing outcomes for public health and safety, mobility, economic prosperity and environmental sustainability in urban and rural communities.

The CAV Task Force embodies the determination of TAC's councils, committees and members to meet several substantial challenges posed by the emergence of CV/AVs:

- Wide-ranging impacts on the mandates of TAC members, combined with a rapid pace of change and broad uncertainty in many areas
- Shared interests between many TAC councils and committees, and new issues arising outside their conventional scope of interest
- Shared interests between TAC and many external organizations that could require the development of new or closer relationships

### **ROLES AND OBJECTIVES**

#### **Role #1: Connect**

- Provide a forum for TAC councils and committees to share perspectives on CV/AVs
- Help TAC councils and committees to identify collective concerns, gaps and opportunities

#### **Role #2: Inform**

- Collect and share information on CV/AV activities of TAC councils and committees
- Collect and share information on CV/AV activities of external organizations

#### **Role #3: Guide**

- Identify critical gaps for TAC members to address through collaboration
- Encourage TAC councils and committees to integrate CV/AV issues in their work plans and projects

#### **Role #4: Represent**

- Liaise with external organizations to inform them about TAC activities, learn about their activities, and identify shared or divergent interests
- Encourage involvement and membership in TAC by CV/AV industry stakeholders (e.g. automakers, software companies, telecommunications providers)

- Collaborate with external organizations on joint initiatives or events

## **SCOPE AND ACTIVITIES**

The technical topics within the scope of the CAV Task Force may include the implications of CV/AV implementation for:

- Transportation infrastructure planning, design, construction, operation, maintenance and financing, including cross-border issues
- Vulnerable road user safety, accessibility and levels of service
- Transit, parking, goods movement and land use
- Electric vehicles and shared mobility services
- Emissions and climate change
- Information and communication technologies
- Data collection, management and access
- Cyber security and privacy
- Personnel training and development

Where responsibility for a topic falls within the mandate of a TAC council or committee, the CAV Task Force works with that body to ensure appropriate consideration. Note that the CAV Task Force may monitor policy to determine technical implications, and may support policy development by illuminating technical requirements; however, it does not make policy recommendations.

Deliverables and activities conducted or sponsored by the CAV Task Force may include:

- Reports to TAC councils and committees, TAC members, and external organizations describing CAV Task Force discussions and initiatives
- Reports to TAC members describing CV/AV-related activities of external organizations
- Reports to external organizations describing CV/AV-related activities of TAC councils and committees
- Volunteer or pooled-fund projects such as white papers, best practice syntheses, technical guidelines, or inventories of CV/AV activities (e.g. research projects, pilot tests, legislation)
- TAC learning events such as conference sessions, webinars and seminars
- Meetings, projects or events conducted in collaboration with external organizations

## **SUPPORTING COMMITTEES**

The CAV Task Force may establish subcommittees by approving terms of reference. Supporting committee chairs attend Task Force meetings to report on progress and receive direction.

Subcommittees are expected to have mandates that focus on administrative or functional issues, rather than technical or substantive areas, and may provide support in areas such as:

- Sharing knowledge—by directing TAC stakeholders to helpful information sources, drafting TAC News articles, identifying webinar topics and speakers, suggesting or organizing conference sessions
- Creating knowledge—by identifying possible volunteer or pooled-fund technical projects, and supporting or leading the development technical project descriptions
- Building and maintaining relationships—by liaising with TAC councils and committees (e.g. surveying members to identify key issues), and with external organizations (e.g. attending CV/AV-related meetings, gathering information on their activities, sharing information on TAC's activities)

## **REPORTING**

The Task Force reports to the TAC Board of Directors, and contributes to the formulation of TAC programs and strategic directions by submitting an annual written report to the Board, and by delivering a verbal report to the Board on Task Force priorities, activities and recommendations during TAC's spring and fall technical meetings.

The Task Force also provides an annual written report to TAC councils and committees, and may make in-person presentations to councils as warranted and feasible.

## **MEMBERSHIP**

CAV Task Force voting and non-voting members are invited and confirmed by the Executive.

**Voting members.** CAV Task Force voting members have the right and responsibility to vote on Task Force matters; a voting member who cannot attend a meeting may delegate their vote to another representative of their organization. The Task Force has up to 35 voting members who are employees of TAC member organizations:

- Standing members (one representative each; no term limit)
  - TAC councils (6)
  - Federal/provincial/territorial transportation departments (up to 14)
- Rotating members (one representative each; two-year term renewable at the Executive's discretion)
  - Municipal/regional transportation authorities (up to 10)
  - Private businesses or academic institutions (up to 5)

**Non-voting members.** The CAV Task Force also has a number of non-voting individual and organizational members who may not be employees of TAC member organizations:

- Invited advisors (one-year term renewable at the Executive's discretion)
  - Individual experts (up to 5)
- Invited organizations (one representative each; no term limit; this list subject to change)
  - American Association of Highway and Transportation Officials (AASHTO)
  - Association québécoise des transports (AQTr)
  - Canadian Council of Motor Vehicle Administrators (CCMTA)
  - Canadian Institute of Planners (CIP)
  - Canadian Institute of Transportation Engineers (CITE)
  - Canadian Standards Association (CSA)
  - Canadian Urban Transit Association (CUTA)
  - Canadian Urban Transit Research and Innovation Consortium (CUTRIC)
  - Canadian Vehicle Manufacturers' Association (CVMA)
  - Canadian Wireless Telecommunications Association (CWTA)
  - Council of Deputy Ministers Responsible for Transportation and Highway Safety
  - Federation of Canadian Municipalities (FCM)
  - Global Automakers of Canada (GAC)
  - Information and Communications Technology Council (ICTC)
  - Intelligent Transportation Systems Canada (ITS Canada)
  - International Municipal Signal Association (IMSA)
  - International Standards Organization (ISO)
  - National Association of City Transportation Officials (NACTO)
  - SAE International

**Friends.** In addition to voting and non-voting members, the CAV Task Force also maintains an unlimited number of friends who are members of TAC and may access information on Task Force meetings.

**Member participation.** All CAV Task Force members are expected to attend in-person meetings and participate in Task Force activities. The Task Force Executive monitors and identifies inactive members who are unable to attend two consecutive in-person meetings or otherwise participate actively in Task Force business for one year. Employers of inactive members may be asked for a replacement nominee.

**Member diversity.** The CAV Task Force provides balanced representation of governmental, non-governmental and private-sector organizations, and of different regions within Canada. While members

are generally appointed by external organizations, they ideally exhibit diversity of gender, age and ethnicity.

## **EXECUTIVE**

The CAV Task Force Executive comprises a Chair, Vice-Chair, Past Chair (once the initial Chair has been replaced), and a Board Liaison who is appointed by the TAC Board of Directors. A representative of the TAC Secretariat is appointed by senior management to act as Secretary.

### **Responsibilities**

#### *Task Force Executive*

- Reviews the Task Force's membership and Terms of Reference
- Reviews and approves semi-annual reports from the Task Force to the TAC Board of Directors
- Provides input to and approves meeting agendas
- Refers any requests for official TAC positions to the TAC Secretariat
- Liaises with external organizations, in collaboration with the TAC Secretariat
- Acts on behalf of the Task Force between meetings
- Conveys the Task Force's recommendations for conference sessions, panel discussions and workshops to the TAC Secretariat
- Ensures abstracts and full papers for conference sessions are reviewed with comments provided to the TAC Secretariat
- Coordinates the development of conference panel discussions and workshops

#### *Chair*

- Chairs meetings
- Reports to the TAC Board of Directors
- Represents the Task Force on the Chief Engineers Panel
- Liaises with the Chairs of TAC councils
- Delegates responsibilities to Vice-Chair and other Task Force members as necessary
- Reviews conflict of interest guidelines with members

#### *Vice-Chair*

- Provides updates on Task Force activities to TAC councils and committees when requested and reasonable

**Term and replacement.** The Chair, Vice-Chair and Past Chair each serve a two-year term with the transition immediately following a fall meeting. At the completion of the term, the Chair becomes Past Chair and the Vice-Chair becomes Chair.

If the Chair is unable to complete their term, the Vice-Chair becomes interim Chair and begins a two-year term as Chair following the Task Force's next fall meeting. The Past Chair remains in office during that two-year term, when possible.

If the Vice-Chair is unable to complete their term, or is required to become Chair, the Task Force elects a replacement at the earliest possible date, and by electronic ballot if required, to ensure the Task Force always has a sitting Chair and Vice-Chair.

**Election of Vice-Chair.** At the spring meeting prior to completion of the Executive's two-year term, the Past Chair (or the Chair, if no Past Chair is active) strikes a Nomination Committee to receive member recommendations or expressions of interest in the Vice-Chair position, and to nominate a candidate or candidates for Vice-Chair for the upcoming term. The Nomination Committee typically comprises the Task Force Executive and two voting members at large. At the final Task Force meeting of the term, a Vice-Chair is confirmed and elected by the Task Force. In the case of a single candidate being nominated, a vote is taken through show-of-hands to accept that nomination. In the case of multiple candidates, a

vote is taken electronically in advance of the fall meeting through secret ballot administered by the TAC Secretariat of all Task Force voting members with the exception of the Chair; in case of a tie, the Chair casts the deciding vote. Prior to announcing multiple candidates, the nomination committee approaches each candidate to ensure their willingness to participate in an anonymous vote, and to request a statement of candidacy for consideration by voting members.

## **MEETINGS AND COMMUNICATIONS**

The Task Force holds in-person meetings twice a year, during TAC's spring and fall technical meetings; any TAC member may attend. The Task Force Executive holds teleconferences between in-person meetings, as needed. The Secretary (a TAC Secretariat representative) is responsible for communicating with Task Force members on behalf of the Task Force Executive and/or TAC Secretariat between in-person meetings, using e-mail and online platforms.

## **VOTING AND APPROVALS**

Approvals by the Task Force (except those related to products for publication or the Task Force's Terms of Reference, as discussed below) require the support of a simple majority of those voting members present.

**Approval of products for publication.** Task Force products to be published by TAC must be approved by the Task Force; national technical guidelines for road transportation must be approved by the Chief Engineers Panel.

Deliverables in the final stage of development are presented to the Task Force at a spring or fall meeting, having been made available to Task Force voting members in advance, for their review. In-person votes to approve products for publication require a quorum of at least 66% of voting members to be present, and at least 75% of votes cast by show-of-hands must be in favour. Where quorum does not exist, an electronic ballot is conducted after the meeting; approval requires at least 66% of voting members to cast a ballot, with at least 75% of votes cast in favour.

**Approval of Terms of Reference.** To amend the Task Force's Terms of Reference, a quorum of at least 66% of voting members must be present and at least 75% of votes cast by show-of-hands must be in favour. Where quorum does not exist, an electronic ballot is conducted after the meeting; approval requires at least 66% of voting members to cast a ballot, with at least 75% of votes cast in favour.