Technical Feasibility

The project is technically feasible within its time frame. The following items demonstrate technical feasibility:

a) **Demonstrated system feasibility.**
b) **Proven similar technology via testing, modeling, simulation, etc.**
c) **Confidence in reliability [Removed from IEEE 802 CSD Nov 2013]**

- Full-duplex operation over unshielded twisted pair has been proven both technically and operationally in deployments of 1000BASE-T and 10GBASE-T in excess of 100 Mb/s per pair. Approved on-going work in 40GBASE-T and 1000BASE-T1 is extending the capability.
- The principle of building a 100 Mb/s single twisted pair PHY that meets automotive environment requirements, including EMC, has been proven both technically and operationally feasible by the deployment of OPEN Alliance BR PHY, operating 100 Mb/s over a single twisted pair, in production vehicles since 2013.
- Systems and infrastructure supporting Ethernet operation over twisted pair cabling have been deployed by the tens of billions at speeds ranging from 1 Mb/s to 100Gb/s. The proposed project will build on Ethernet component and system design experience and the broad knowledge base of Ethernet network operation.