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# Road Vehicles — Extended vehicle (ExVe) methodology —

## Part 2: Methodology for designing the extended vehicle

*Véhicules routiers — Méthodologie du véhicule étendu (ExVe) —*
*Partie 2: Méthodologie pour désigner le véhicule étendu*

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# Contents



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# Foreword

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This document was prepared by Technical Committee is ISO/TC 22 *Road vehicles*, Subcommittee SC 31, *Data communication*.

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# Introduction

This document is dedicated to the extended vehicle (ExVe).

In the early 2010s, advances in technology have led to new ways of communicating with the vehicle where digital information could be accessed not only in a physical way, but also wirelessly.

The removal of the constraint of a physical connection has enabled

— remote access to vehicle functionality that previously was impossible or very difficult, and

— simplified access to multiple information sources which have together created opportunities for new functionalities.

These advances have generated an increased need for interconnection with data specific to each vehicle. This phenomenon was similar to the increase of new functionalities enabled by the usage of multiplexed buses in vehicles.

This evolution has led to the introduction of the “extended vehicle” (ExVe) concept as described in ISO 20077-1.

Technical constraints and societal needs should be taken into account when designing these new functionalities. It is also necessary to mitigate the risks introduced by the new communication means between the ExVe and the external world.

In this context, this document aims at guiding the ExVe manufacturer by specifying a set of general rules and basic principles from which each ExVe manufacturer derives their own detailed and specific methods or procedures to design an extended vehicle.

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