# DIN CEN/TS 17268:2019-05 (E)

## Intelligent transport systems - ITS spatial data - Data exchange on changes in road attributes; English version CEN/TS 17268:2018

## Contents

Page


European foreword ... 4

Introduction ... 5

1 Scope ... 7

2 Normative references ... 7

3 Terms and definitions ... 8

4 Symbols and abbreviated terms ... 9

5 Conformance ... 9

6 Data content specification ... 10
6.1 Introduction ... 10
6.2 Package overview ... 10
6.3 Package Road features ... 12
6.3.1 Overview ... 12
6.3.2 Class definitions ... 14
6.3.3 Sub package Conditions ... 20
6.4 Package location referencing ... 43
6.5 Package Updates ... 56
6.5.1 Overview ... 56
6.5.2 Class definitions ... 57
6.6 Package Metadata ... 57
6.7 Package Feedback ... 59
6.8 Package Data set ... 65

7 Physical exchange format - structure and encoding ... 69
7.1 Introduction ... 69
7.2 GML schemas for TN-ITS ... 70

8 Service specification ... 72
8.1 Introduction ... 72
8.1.1 Context ... 72
8.1.2 Discovery service scope ... 72
8.1.3 Download service scope ... 73
8.1.4 Download service decisions ... 73
8.1.5 Approach 1: Server defined update intervals ... 73
8.1.6 Approach 2: Client defined update intervals ... 74
8.1.7 Server/Client defined update intervals - conclusion ... 74
8.1.8 Versioning scheme ... 75
8.2 Interface specification ... 75
8.2.1 Context ... 75
8.2.2 Server-side interfaces ... 75
8.2.3 Server-side classes and datatypes ... 77
8.2.4 Server-side responsibilities ... 78
8.3 Interface implementation specification ... 81

**Annex A (normative) Enumerations and CodeLists** ..... 82
**A.1 Explanation of Structure** ..... 82
**A.2 Enumerations** ..... 82
**A.3 Codelists** ..... 86
**Annex B (normative) TN-ITS XSD schemas** ..... 124
**B.1 General** ..... 124
**B.2 XML schemas** ..... 124
**B.2.1 TN-ITS.xsd** ..... 124
**B.2.2 Dataset.xsd** ..... 124
**B.2.3 RoadFeatures.xsd** ..... 126
**B.2.4 Conditions.xsd** ..... 129
**B.2.5 LocationReferencing.xsd** ..... 137
**B.2.6 Update.xsd** ..... 142
**B.2.7 Feedback.xsd** ..... 143
**B.2.8 Metadata.xsd** ..... 146
**B.2.9 OpenLR.xsd** ..... 146
**B.3 Linear referencing methods** ..... 159
**Annex C (informative) Examples of GML files** ..... 160
**Annex D (informative) Alignment with EC Delegated Regulation 2015/962 and INSPIRE** ..... 161
**D.1 Context** ..... 161
**D.2 Alignment with the Delegated Regulation 2015/962 supplementing the European ITS Directive (2010/40/EU)** ..... 161
**D.3 Alignment with INSPIRE Directive (2007/2/EU) and INSPIRE Implementing Rules** ..... 164
**D.3.1 Connection to INSPIRE Road Network data sets** ..... 164
**D.3.2 Use of INSPIRE Administrative Units** ..... 164
**D.3.3 Alignment in regard to INSPIRE Metadata Implementing Rules** ..... 164
**Annex E (informative) Link to EN ISO 19148** ..... 168
**Bibliography** ..... 170