

# DIN EN ISO 18541-1:2021-10 (E)

## Road vehicles - Standardized access to automotive repair and maintenance information (RMI) - Part 1: General information and use case definition (ISO 18541-1:2021)

---

| <b>Contents</b>         |   | <b>Page</b> |
|-------------------------|---|-------------|
| European foreword ..... |   | 4           |
| Foreword .....          |   | 5           |
| Introduction .....      |   | 6           |
| 1                       | Scope .....   | 7           |
| 2                       | Normative references .....  | 7           |
| 3                       | Terms and definitions .....                                       | 7           |
| 4                       | Abbreviated terms .....   | 13          |
| 5                       | Document overview and structure .....                             | 13          |
| 6                       | General information .....   | 15          |
| 6.1                     | Access to vehicle RMI .....                                       | 15          |
| 6.2                     | Standardized access to RMI benefit examples .....                 | 16          |
| 6.2.1                   | Independent operators .....                                       | 16          |
| 6.2.2                   | Vehicle manufacturers .....                                       | 16          |
| 7                       | RMI use case overview and principles .....                        | 17          |
| 7.1                     | Overview of basic principles .....                                | 17          |
| 7.2                     | Overview of use case clusters .....                               | 17          |
| 7.3                     | Access to security-related RMI .....                              | 20          |
| 8                       | RMI use cases .....   | 20          |
| 8.1                     | UC 1 User authentication, authorization and administration .....  | 20          |
| 8.1.1                   | UC 1.1 Register IO for use of the VM RMI system .....             | 20          |
| 8.1.2                   | UC 1.2 Register IO employee for use of the VM RMI system .....    | 22          |
| 8.1.3                   | UC 1.3 Maintain IO status .....                                   | 22          |
| 8.1.4                   | UC 1.4 Maintain user status .....                                 | 23          |
| 8.1.5                   | UC 1.5 Request to delete the registration of an IO employee ..... | 23          |
| 8.1.6                   | UC 1.6 Login to VM RMI system .....                               | 23          |
| 8.1.7                   | UC 1.7 Grant access to security-related RMI .....                 | 24          |
| 8.2                     | UC 2 Payment for RMI .....  | 24          |
| 8.3                     | UC 3 Vehicle identification .....                                 | 25          |
| 8.3.1                   | UC 3.1 Vehicle identification through use of the VIN .....        | 25          |
| 8.3.2                   | UC 3.2 Vehicle type identification via product features .....     | 25          |
| 8.4                     | UC 4 Provide selection methods for RMI .....                      | 27          |
| 8.4.1                   | UC 4.1 Select information type .....                              | 27          |
| 8.4.2                   | UC 4.2 Search by standardized terms .....                         | 28          |
| 8.4.3                   | UC 4.3 Navigate using product structure .....                     | 28          |
| 8.4.4                   | UC 4.4 Select by document identifier .....                        | 28          |
| 8.5                     | UC 5 Retrieve information packages .....                          | 28          |
| 8.5.1                   | UC 5.1 Workshop procedures .....                                  | 28          |
| 8.5.2                   | UC 5.2 Wiring diagrams .....                                      | 30          |
| 8.5.3                   | UC 5.3 Technical service bulletin .....                           | 30          |

|  |  |    |
|--|--|----|
| 8.5.4  | UC 5.4 Recall information .....  | 30 |
| 8.5.5  | UC 5.5 Maintenance schedule .....  | 31 |
| 8.5.6  | UC 5.6 Spare parts .....   | 31 |
| 8.5.7  | UC 5.7 Accessories .....   | 32 |
| 8.5.8  | UC 5.8 Labour times .....  | 33 |
| 8.5.9  | UC 5.9 Converted vehicles .....  | 33 |
| 8.5.10   | UC 5.10 Special tools .....  | 33 |
| 8.6  | UC 6 Vehicle diagnostics .....   | 34 |
| 8.6.1  | UC 6.1 DTC resolution .....  | 34 |
| 8.6.2  | UC 6.2 VM symptom resolution .....   | 34 |
| 8.6.3  | UC 6.3 Integrated diagnostics .....  | 34 |
| 8.7  | UC 7 Updating, replacing and tuning of modules (ECUs) .....                | 35 |
| 8.7.1  | UC 7.1 Updating and replacing modules .....                                | 35 |
| 8.7.2  | UC 7.2 Tuning kit .....  | 36 |
| 8.8  | UC 8 Electronic maintenance history .....                                  | 36 |
| 8.9  | UC 9 Repair assistance technical support .....                             | 37 |
| 8.10   | UC 10 Request contact for specific RMI .....                               | 37 |
| 8.10.1   | UC 10.1 Electronic tool information (diagnostic, reprogramming, VCI) ..... | 37 |
| 8.10.2   | UC 10.2 Test equipment and diagnostic tool manufacturers .....             | 38 |
| 8.10.3   | UC 10.3 Training material (delegate information) .....                     | 38 |
| 8.10.4   | UC 10.4 Redistributors .....   | 38 |
| 8.10.5   | UC 10.5 Republishers .....   | 39 |
| 8.10.6   | UC 10.6 Inspection and testing services .....                              | 39 |
| 8.10.7   | UC 10.7 Alternative fuels retrofit systems .....                           | 40 |
| 8.10.8   | UC 10.8 Engine and components remanufacturing .....                        | 40 |
| 8.10.9   | UC 10.9 Component and parts manufacturers .....                            | 40 |
| 8.10.10  | UC 10.10 Validation of independently developed non-proprietary VCIs .....  | 41 |
| 8.11   | UC 11 Courses and training information .....                               | 41 |
| Annex A (normative) Access to security related RMI according to SERMI scheme ..... |  | 43 |
| Bibliography .....   |  | 45 |