

ISO 37155-2:2021 (E)

Framework for integration and operation of smart community infrastructures — Part 2: Holistic approach and the strategy for development, operation and maintenance of smart community infrastructures

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Understanding of smart community infrastructure layers
4.1	Smart community infrastructure system layer
4.2	Smart community infrastructure layer
4.3	Smart community sub-infrastructure layer
5	Benefits of applying this document
5.1	General
5.2	General benefits
5.3	Benefits for community authorities
5.4	Benefits for investors or lenders
5.5	Benefits for developers, operators and infrastructure owners
5.6	Benefits for service providers
5.7	Benefits for people in smart communities
6	Life cycle phases of smart community infrastructure
6.1	General
6.2	Initiation (phase 1)
6.2.1	Smart community concept (phase 1-1)
6.3	Design of target infrastructures (phase 2)
6.3.1	Basic concept (phase 2-1)
6.3.2	Basic plan (phase 2-2)
6.3.3	Fundamental design (phase 2-3)
6.3.4	Tendering (phase 2-4)
6.3.5	Implementation design (phase 2-5)
6.4	Construction and assessment (phase 3)
6.4.1	Manufacturing, construction, and installation (phase 3-1)
6.4.2	Individual and combination tests and validation (phase 3-2)
6.4.3	Overall assessment of smart community infrastructures as a whole (phase 3-3)
6.5	Operation and maintenance (phase 4)
6.6	Redevelopment and rehabilitation (phase 5)
6.7	Decommissioning (phase 6)
7	General process to ensure consistency
7.1	General
7.2	Process overview
7.3	Action items in V process (item 2 in Figure)
7.3.1	Item 1: Setting the targets for infrastructures
7.3.2	Item 2: Analyse the solutions for different infrastructures to achieve the targets
7.3.3	Item 3: Validation and Verification
7.3.4	Item 4: Monitoring the performance of infrastructures
7.3.5	Item 5: Improve the targets

Guidelines for ensuring consistency

- 8.1 **General**
- 8.2 **Smart community concept (phase 1-1)**
 - 8.2.1 **Recommendations for verification and validation**
 - 8.2.2 **Responsibility**
- 8.3 **Basic concept (phase 2-1)**
 - 8.3.1 **Recommendations for verification**
 - 8.3.2 **Recommendations for validation**
 - 8.3.3 **Responsibility**
- 8.4 **Basic plan (phase 2-2)**
 - 8.4.1 **Recommendations for verification**
 - 8.4.2 **Recommendations for validation**
 - 8.4.3 **Responsibility**
- 8.5 **Fundamental design (phase 2-3)**
 - 8.5.1 **Recommendations for verification**
 - 8.5.2 **Recommendations for validation**
 - 8.5.3 **Responsibility**
- 8.6 **Tendering (phase 2-4)**
 - 8.6.1 **Recommendations for verification**
 - 8.6.1.1 **When awarding contracts,**
 - 8.6.2 **Responsibility**
- 8.7 **Implementation design (phase 2-5)**
 - 8.7.1 **Recommendations for verification**
 - 8.7.2 **Recommendations for validation**
 - 8.7.3 **Responsibility**
- 8.8 **Manufacturing, construction and installation (phase 3-1)**
- 8.9 **Individual and combination tests and validation (phase 3-2)**
- 8.10 **Overall assessment and validation (phase 3-3)**
- 8.11 **Operation and maintenance (phase 4)**
 - 8.11.1 **Recommendations for verification**
 - 8.11.2 **Recommendations for validation**
 - 8.11.3 **Responsibility**
- 8.12 **Redevelopment and rehabilitation (phase 5)**
 - 8.12.1 **Recommendations for verification and validation**
 - 8.12.2 **Responsibility**
- 8.13 **Decommissioning (phase 6)**
 - 8.13.1 **Recommendations for verification**
 - 8.13.2 **Recommendations for validation**
 - 8.13.3 **Responsibility**