



KDI ● **Knowledge and Data Integration**

iThelos - Scope

W3.L6.M3.T6

Contents

- 1 Top level view**
- 2 Knowledge Purpose**
- 3 Data Purpose**
- 4 Languages & Standards**
- 5 Deliverables**
- 6 Examples**

Contents

- 1 Top level view**
- 2 Knowledge Purpose
- 3 Data Purpose
- 4 Languages & Standards
- 5 Deliverables
- 6 Examples

Top level view

Figure: Scope Definition Diagram

Top level view

where:

- 0 : List of Repositories and Data sets already available.
- i : Problem Purpose.
- ii : Purpose Documentation.

Top level view

The Scope phase aims to define the project's purpose and to answer to the following questions:

- Why the iTelos Methodology has to be adopted?
- Which is the problem's context and how is defined?
- Which problem the Methodology will solve in the context?

Contents

- 1 Top level view
- 2 Knowledge Purpose**
- 3 Data Purpose
- 4 Languages & Standards
- 5 Deliverables
- 6 Examples

Knowledge Purpose

Knowledge Purpose

Executed sub-activities in the Knowledge Purpose macro-activity:

- Problem Context definition
- Problem Why definition

Knowledge Purpose

Tasks of Domain Experts are to identify and define:

- the context in which the project will be focused on;
- why to solve the problem in that context;
- why the iTelos Methodology is needed to solve it

Problem Context definition

Within this sub-activity, tasks of Domain Experts are to identify and define the context in which the application will work in.

Domain Experts has to define three fundamental aspect of the problem's context:

- Geographical aspects.
- Temporal aspects.
- Domain general aspects.

Problem Why de nition

In this sub-activity, Domain Experts has to integrate the documentation with the information regards why the problem has to be solved. In particular:

- Purpose for starting the Project.
- Problem description.
- Personas and Scenarios relative to the problem.

Contents

- 1 Top level view
- 2 Knowledge Purpose
- 3 Data Purpose**
- 4 Languages & Standards
- 5 Deliverables
- 6 Examples

Data Purpose

Data Purpose

The Data Purpose macro-activity executes the following sub-activity:

- Problem Data location.

Data Purpose

In this current sub-activity the Domain Experts have to produce a list of the main data sources used to collect data for the project like:

- Open data repositories.
- Data sets, such as private databases.
- Web pages to gather data.

Contents

- 1 Top level view
- 2 Knowledge Purpose
- 3 Data Purpose
- 4 Languages & Standards**
- 5 Deliverables
- 6 Examples

Languages & Standards and Tools

- Knowledge purpose:
Overleaf is required for documenting the phase's output => knowledge and usage of the LaTeX language.

- Data purpose:
Excel or Google Sheet for the data level output => the Domain Expert should be able to produce documentation by following this standard.

Contents

- 1 Top level view
- 2 Knowledge Purpose
- 3 Data Purpose
- 4 Languages & Standards
- 5 Deliverables**
- 6 Examples

Deliverables

In the Scope Definition phase the output consists of a documentation that include the iTelos project report . The document discusses the initial most important aspects related to the project itself:

- the context of the project;
- the actors involved;
- the scenarios;
- the project purpose;
- the data source sheet.

Contents

- 1 Top level view
- 2 Knowledge Purpose
- 3 Data Purpose
- 4 Languages & Standards
- 5 Deliverables
- 6 Examples**

Examples of Knowledge Purpose

Figure: Space Domain Problem purpose

Examples of Knowledge Purpose

Figure: Space Domain Personas

Examples of Knowledge Purpose

Figure: Space Domain Scenarios

Examples of Data Purpose

4 <https://www.booking.com>
5 <https://scrapy.org/>
6 <https://dati.trentino.it/dataset/esercizi-alberghieri>
7 <https://dati.trentino.it/dataset/trasporti-pubblici-del-trentino-formato-gtfs>
8 <http://sasabus.org/it/opendata>
9 <https://developers.google.com/transit/gtfs>
10 <https://www.istat.it/it/archivio/6789>
11 <https://www.openstreetmap.org/>

Figure: Space Domain Data Sources



KDI Knowledge and Data Integration



W3.L6.M3.T6



iThelos - Scope