



Open Government Data: Fostering Innovation

Ivan Bedini
Feroz Farazi
Juan Pane
Ivan Tankoyeu
David Leoni
Stefano Leucci

Open Data Trentino (ODT)

Various provincial departments as part of their daily activities, **produce, manage and store** large volume of **authentic and interesting** data

Not all of this data can be made publicly available because of the constraints such as

- **privacy** issues
- national **security** concerns
- intellectual property rights

Yet data that are beyond any constraints have

- great **economic value**
- strong potential for supporting **innovation**

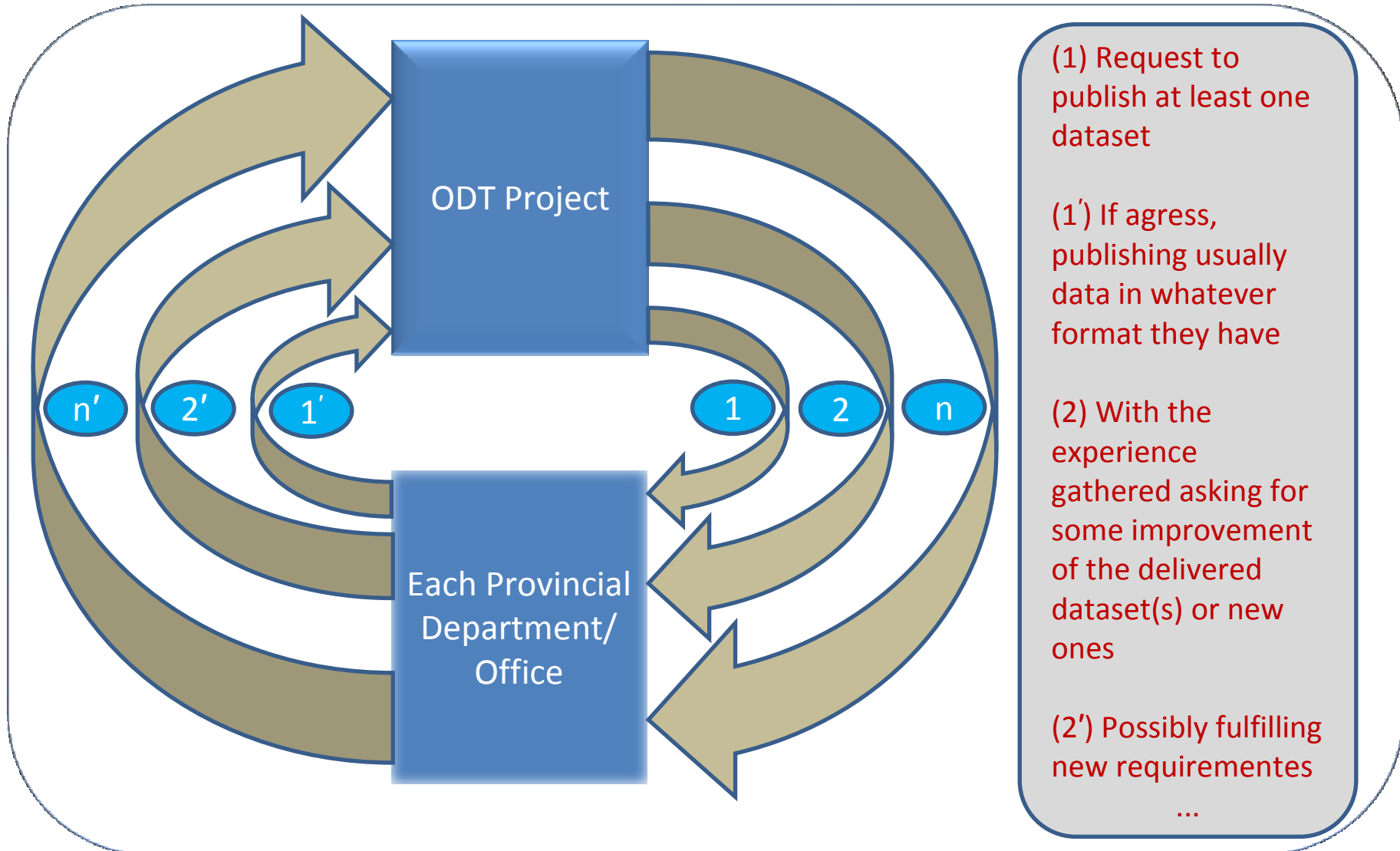
Open Data Trentino (ODT) cont.

Motivation

Open (public) data or Public Sector Information (PSI) can:

- Create new opportunities for the region based on their **creative reuse**
- Let citizens and various actors including universities, research centers and SMEs
 - **propose and invent new solutions** to common problems
 - develop domain specific **easy to use applications** that provide necessary result with little effort
 - help contribute in improving organizational and communication **efficiency**

Open Data Trentino (ODT) cont.



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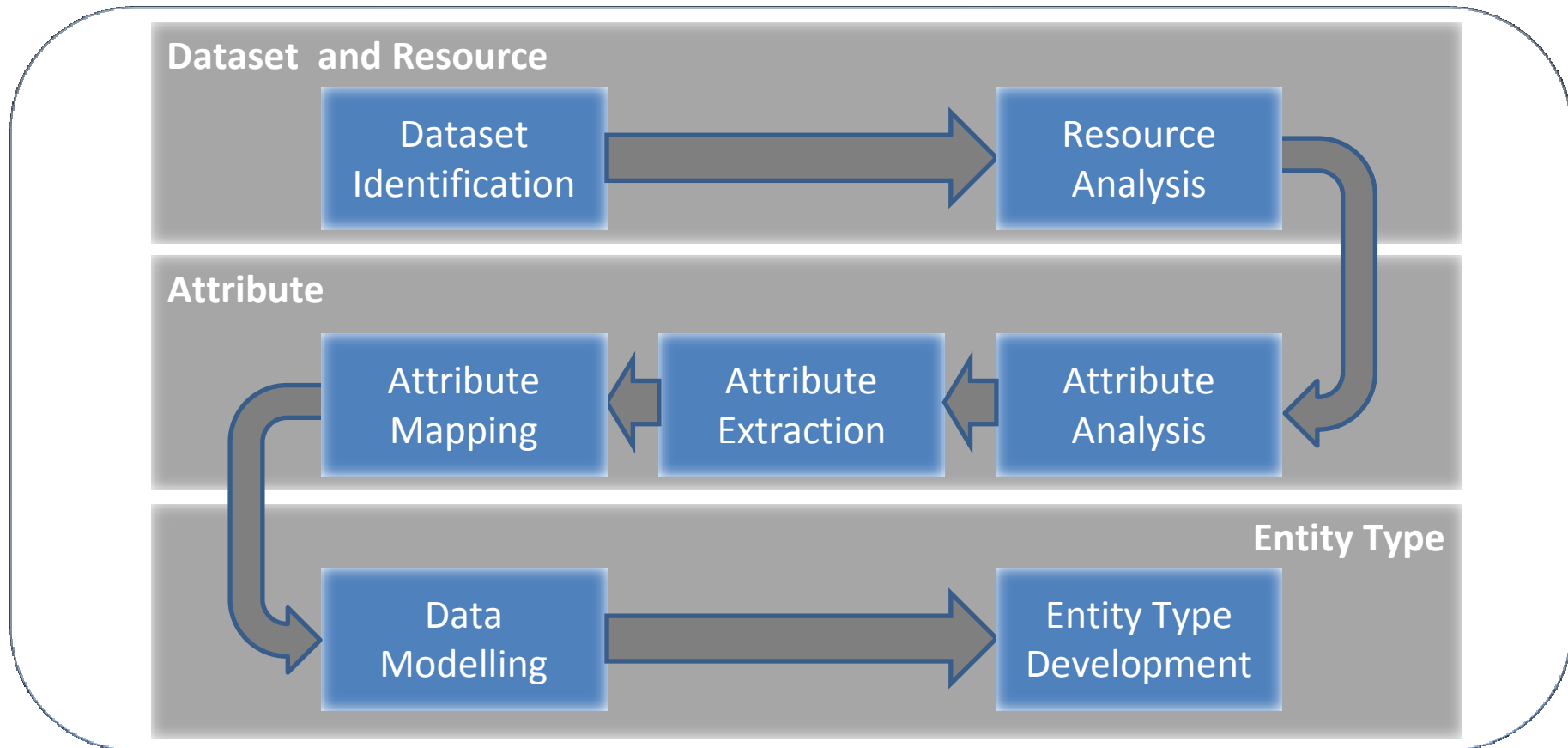
Issues

- ❑ While quantity of such datasets (~650) is considered as satisfactory enough, **completeness** (both horizontally and vertically) is yet to be improved
- ❑ **Loosely coupled nature** of data is posing challenge in developing applications on top of them

Possible Solutions

- ❑ Making data publishing procedure as an **integral part** of the change management in a **public administration**
- ❑ **Modelling data as entities** for facilitating an integrated, combined and extensible representation

Modelling Data as Entities



Entity Type (eType): a type of an entity (e.g., a ski lift, a restaurant) with a set of data attributes and/or relational ones forming the foundation of creating entities of the same kind (*Giunchiglia et al.*)

Open Data Rise (ODR)



Figure: ODR Semantification Pipeline

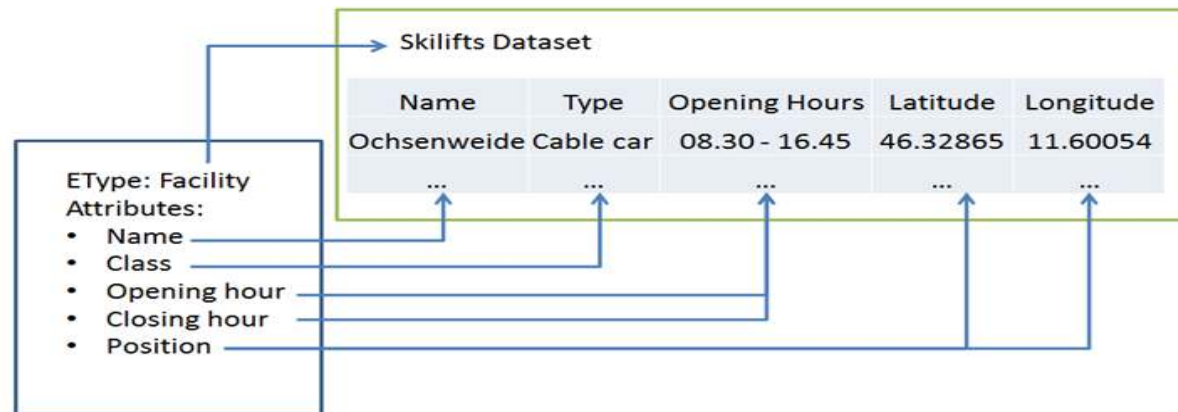


Figure: Matching Skilift Dataset with the corresponding Entity Type

Applications



Figure: Faceted navigation for finding points of interest

Applications cont.



Figure: Semantic navigation for finding points of interest

Applications cont.

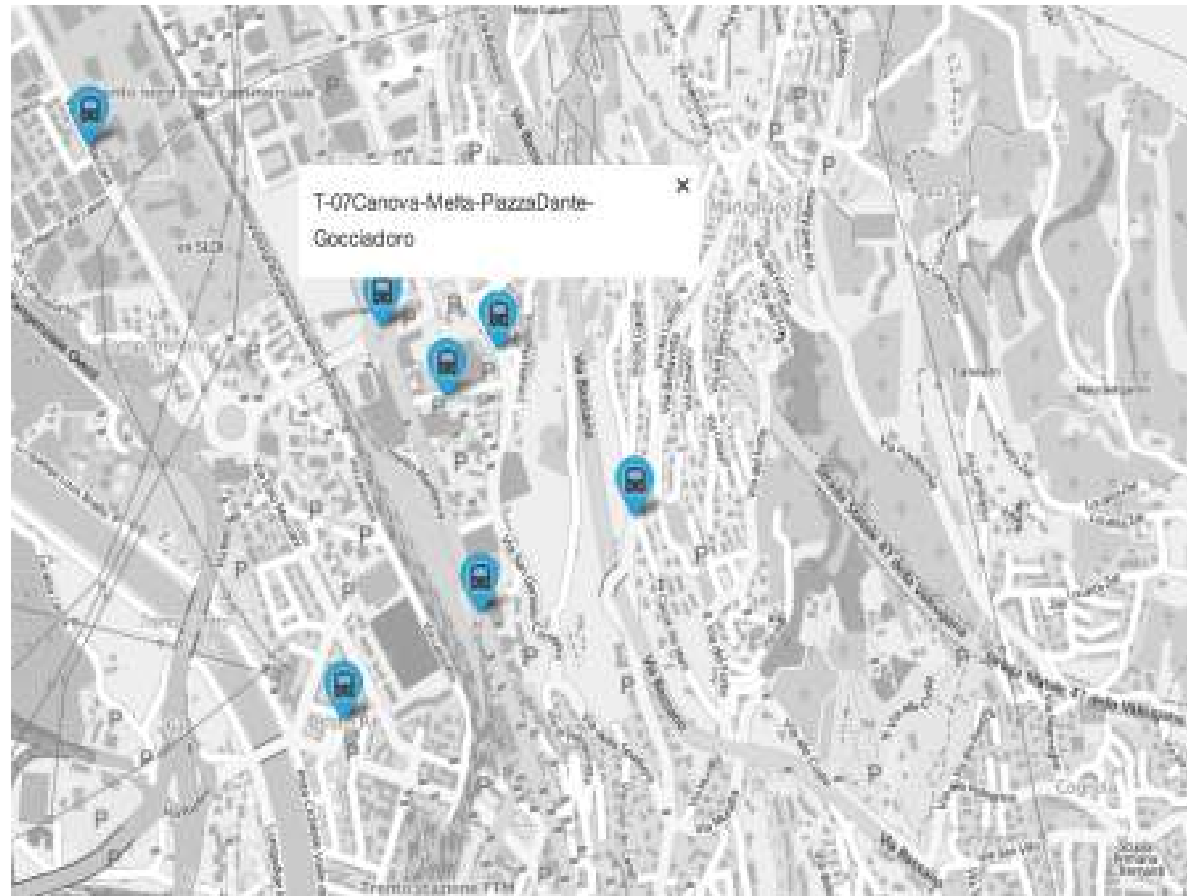


Figure: Open Bus Application

Conclusions

- ❑ The result that we obtained in Trentino is promising and helpful in the **diffusion** of the **data culture** to the public administrations
- ❑ We proposed an approach for generating **entity** leveraging open government data
- ❑ We are building an **entity based infrastructure** that by design facilitates consistency in data representation and as such enables the **re-use** of **public sector information**
- ❑ The **entity centric data representation** and the **infrastructure** as a whole can be considered as an input to the W3C Data on the Web Best Practices Working Group to provide guidance to data publishers

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Thank you!