NOI A.G. / S.p.A.
Roberto Cavaliere
r.cavaliere@noi.bz.it
T +39 0471 066 676

Südtirol Radelt Data Collector
v1.1, 07.02.2024

Preliminary notes

The Department Green Mobility of STA launches since many years the "Südtirol Radelt" competition for the promotion of cycling in South Tyrol. In order to do that, they have introduced an APP in which users can manually registers their trips done with a bicycle. The APP is provided by a supplier, Seimal Digital, together with a back-end for the collection of statistical information, that are then published on the web-site https://www.suedtirolradelt.bz.it/

Thanks to a commitment to Seimal Digital, in cooperation with STA a new API has been implemented so to allow the sharing of these statistical information with 3rd parties, in particular with the Open Data Hub.

End-points and authentication

DE: https://www.suedtirolradelt.bz.it/dashboard/api/opendata/

IT: https://www.altoadigepedala.bz.it/dashboard/api/opendata/

Please note that these end-point have to be correctly called as indicated below in order to get valid results. No authentication is foreseen.

Documentation and other useful information: https://opendata.radelt.at/

Available services

Available services are made available:

Nature of Innovation.

- **Aktionen**: list of competitions available with general statistics (https://www.altoadigepedala.bz.it/dashboard/api/opendata/challenges)

- **Organisationen**: list of organizations with reference to specific competitions and detailed statistics associated to organizations + actions (https://www.suedtirolradelt.bz.it/dashboard/api/opendata/organisations?challengeId=xxx where xxx is a challengeID)

The web-service "**Aktionen**" can be called with different input parameters, namely:

- **active**: boolean indicating if we want to integrate competitions that are closed or open

- **limit**: number of maximum challenges to be returned

- **offset**: to be used in case of retrieval of information through a paging concept (from which point I would like to get the competitions information, to be used in combination with limit)

- **type**: type of challenge. Possible values: DISTANCE, POI, JOURNEY

The web-service "**Organisationen**" can be called with different input parameters, namely:

- **type**: type of organization. Possible values: ASSOCIATION, MUNICIPALITY, WORKPLACE, SCHOOL, UNIVERSITY

- **query**: default values 'STA'

- **challenge_id**: competition ID, to be used to get only the companies participating to a specific competition

- **limit**: number of maximum organizations to be returned

- **offset**: to be used in case of retrieval of information through a paging concept (from which point I would like to get the organizations information, to be used in combination with limit)

Data Collector specification

GAMIFICATION ACTION

Through the method "Aktionen" it is possible to get the overall statistics of the gamification actions, e.g.:

```
{
  "success": true,
  "data": {
    "challenges": [
      {
        "id": 280,
        "name": "L'Alto Adige pedala 2023",
        "shortName": "L'Alto Adige pedala 2023",
        "headerImage": "https://altoadige.radelt.localhost/dashboard/storage/challenges/0rRUo8oxILBG2BWS6yAu3m7BmZpx1KFPegg8zzzh.jpg",
        "start": "2022-12-31T23:00:00.000000Z",
        "end": "2023-12-31T22:59:59.000000Z",
```

```
      "registrationStart": "2022-12-31T23:00:00.000000Z",
      "registrationEnd": "2023-12-31T22:59:59.000000Z",
      "type": "DISTANCE",
      "isExternal": false,
      "canOrganisationsSignup": true,
      "statistics": {
        "challenge": {
          "id": 49256383,
          "challenge_id": 280,
          "challenge_name": "L'Alto Adige pedala 2023",
          "km_total": 2651388.2,
          "height_meters_total": 11065917.64,
          "km_average": 8337.7,
          "kcal": 78968946.2,
          "co2": 467704.88,
          "m2_trees": 23385.24,
          "money_saved": 914728.9,
          "physical_activity_percentage": null,
          "number_of_people": 2766,
          "created_at": "2023-11-15T02:32:03.000000Z",
          "organisation_count": 186,
          "workplace_count": 121,
          "school_count": 8,
          "municipality_count": 42,
          "association_count": 13,
          "university_count": 2,
          "name": "L'Alto Adige pedala 2023",
          "challenge_type": "DISTANCE"
        }
      }
    },
    {
      "id": 379,
      ….
```

The proposal is to store each challenge as a "station", and to save the corresponding KPI as measurements. Therefore we can imagine to have a "virtual" station with stationtype = GamificationAction, with following mapping:

id	stationcode
name	name
shortName	METADATA
Slug	METADATA
headerImage	METADATA
Start	METADATA
End	METADATA
registrationStart	METADATA

registrationEnd	METADATA
type	METADATA
isExternal	METADATA
canOrganisationsSignup	METADATA

Please note that the fields linked to METADATA mean that have to be stored in the metadata table. The following additional aspects have to be taken into account:

- **origin**: to be set as "**SuedtirolRadelt_AltoAdigePedala**"

- **pointprojection**: in this case we don't have coordinates in the API, because of the nature of the data. Proposal: separate CSV file in which we can define the locations arbitrarily, for each station / challenge

- **stationtype**: to be set as "**GamificationAction**"

The following types are provided and are to be integrated (proposal: recovery of the data every 10 minutes):

km_total	Total amount of kilometers registered	600
height_meters_total	Total amount of height meters registered	600
km_average	Average number of kilometers registered (km_total / number_of_people)	600
kcal	Total amount of kilocalories registered / calculated	600
co2	Total amount of CO2 emissions savings (expressed in xxx)	600
m2_trees	Total equivalent tree area created with CO2 savings	600
money_saved	Total amount of money saved	600
number_of_people	Total number of registered users	600
organization_count	Total number of registered organizations	600
workplace_count	Total number of registered workplaces	600
school_count	Total number of registered schools	600
municipality_count	Total number of registered municipalities	600
association_count	Total number of registered associations	600
university_count	Total number of registered universities	600

The associated statistics have to be stored as measurement. Please use the field "created_at" in the API to populate the field "timestamp" in the Open Data Hub database.

COMPANY GAMIFICATION ACTIONS

Through the method "Organisationen" it is possible to get the overall statistics of the gamification actions, but specifically related to a specific company, e.g.:

```
{
  "success": true,
  "data": {
   "organisations": [
    {
     "id": 1504,
     "name": "Gemeinde Leifers - Comune di Laives",
     "type": "MUNICIPALITY",
     "logo": "https://altoadige.radelt.localhost/dashboard/storage/organisations/organisations/Logo_1504.jpg",
     "website": "http://www.comune.laives.bz.it",
     "peopleTotal": 18100,
     "statistics": {
      "challengeStatistics": [
       {
        "id": 49256209,
        "challenge_id": 280,
        "challenge_name": "L'Alto Adige pedala 2023",
        "km_total": 44917.6,
        "height_meters_total": 89452,
        "km_average": 141.3,
        "kcal": 1337825.8,
        "co2": 7923.46,
        "m2_trees": 396.17,
        "money_saved": 15496.6,
        "physical_activity_percentage": null,
        "number_of_people": 60,
        "created_at": "2023-11-15T02:30:09.000000Z",
        "name": "L'Alto Adige pedala 2023",
        "challenge_type": "DISTANCE"
       }
      ]
     }
    },
    {
     "id": 1505,
    ….
```

The proposal is to store each challenge associated to a specific company as a "station", and to save the corresponding KPI as measurements. Therefore we can imagine to have a "virtual" station with stationtype = CompanyGamificationAction, with following mapping:

id-challenge_id	stationcode
name-challenge_name	name
type	METADATA
logo	METADATA
website	METADATA
peopleTotal	METADATA
Challenge_type	METADATA

Please note that the fields linked to METADATA mean that have to be stored in the metadata table. The following additional aspects have to be taken into account:

- **origin**: to be set as "**SuedtirolRadelt_AltoAdigePedala**"

- **pointprojection**: in this case we don't have coordinates in the API, because of the nature of the data. Proposal: separate CSV file in which we can define the locations arbitrarily, for each station / challenge.

- **stationtype**: to be set as "**CompanyGamificationAction**"

Please note that each organization can be characterized by a structure called "children". In this case, father / child organizations are represented. However, since challenge statistics are not available at a level of child organizations, this kind of detail is not considered.

The following types are provided and are to be integrated (proposal: recovery of the data every 10 minutes):

km_total	Total amount of kilometers registered	600
height_meters_total	Total amount of height meters registered	600
km_average	Average number of kilometers registered (km_total / number_of_people)	600
kcal	Total amount of kilocalories registered / calculated	600
co2	Total amount of CO2 emissions savings (expressed in xxx)	600
m2_trees	Total equivalent tree area created with CO2 savings	600
money_saved	Total amount of money saved	600
number_of_people	Total number of registered users	600

Of course the same data type have to be used for both type of stations. The associated statistics have to be stored as measurement. Please use the field "created_at" in the API to populate the field "timestamp" in the Open Data Hub database.