

Semantics for EDIAQI

deda.next

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EDIAQI

Parameters and UoM

Parameter	UoM
Particulate matter 2.5 (PM2.5)	$\mu\text{g}/\text{m}^3$
Particulate matter 10 (PM10)	$\mu\text{g}/\text{m}^3$
Ozone (O3)	$\mu\text{g}/\text{m}^3$
Nitrogen dioxide (NO ₂)	$\mu\text{g}/\text{m}^3$
Carbon monoxide (CO)	mg/m^3
Carbon dioxide (CO ₂)	$\mu\text{g}/\text{m}^3$
Volatile Organic Compound (VOC)	$\mu\text{g}/\text{m}^3$
Aromatic Volatile Organic Compound (AVOC)	$\mu\text{g}/\text{m}^3$

Frequency

Parameter	Frequency
Particulate matter 2.5 (PM2.5)	15'
Particulate matter 10 (PM10)	
Ozone (O3)	
Nitrogen dioxide (NO ₂)	
Carbon monoxide (CO)	
Carbon dioxide (CO ₂)	
Volatile Organic Compound (VOC)	
Aromatic Volatile Organic Compound (AVOC)	

Frequency

Parameter	Frequency
Temperature (T)	15'
Relative humidity (RH)	
Air pressure (Pr)	

Values

Parameter	Values
Particulate matter 2.5 (PM2.5)	Average Minimum Maximum Median St. deviation
Particulate matter 10 (PM10)	
Ozone (O3)	
Nitrogen dioxide (NO ₂)	
Carbon monoxide (CO)	
Carbon dioxide (CO ₂)	
Volatile Organic Compound (VOC)	
Aromatic Volatile Organic Compound (AVOC)	

Values

Parameter	Values
Temperature (T)	Average Minimum Maximum Median St. deviation
Relative humidity (RH)	
Air pressure (Pr)	

Spatial location

it is “where” stations are placed within “pilot buildings”

it can be either expressed as “points” or “polygons”

Pilot buildings

as point

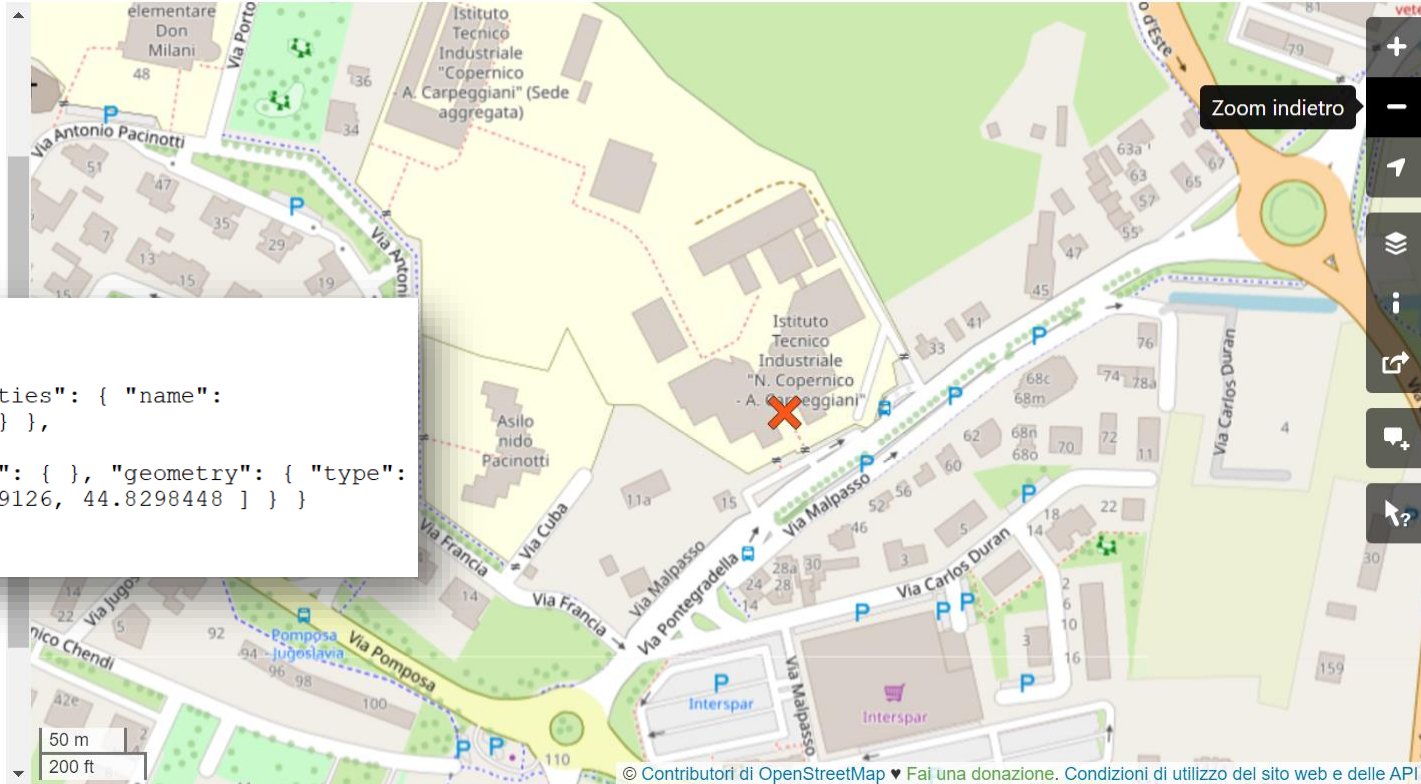
"N. Copernico - A. Carpeggiani"
(166785982)

Versione #4

(nessun commento)

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```

	Copernico - A. Carpeggiani"
source	Regione Emilia Romagna



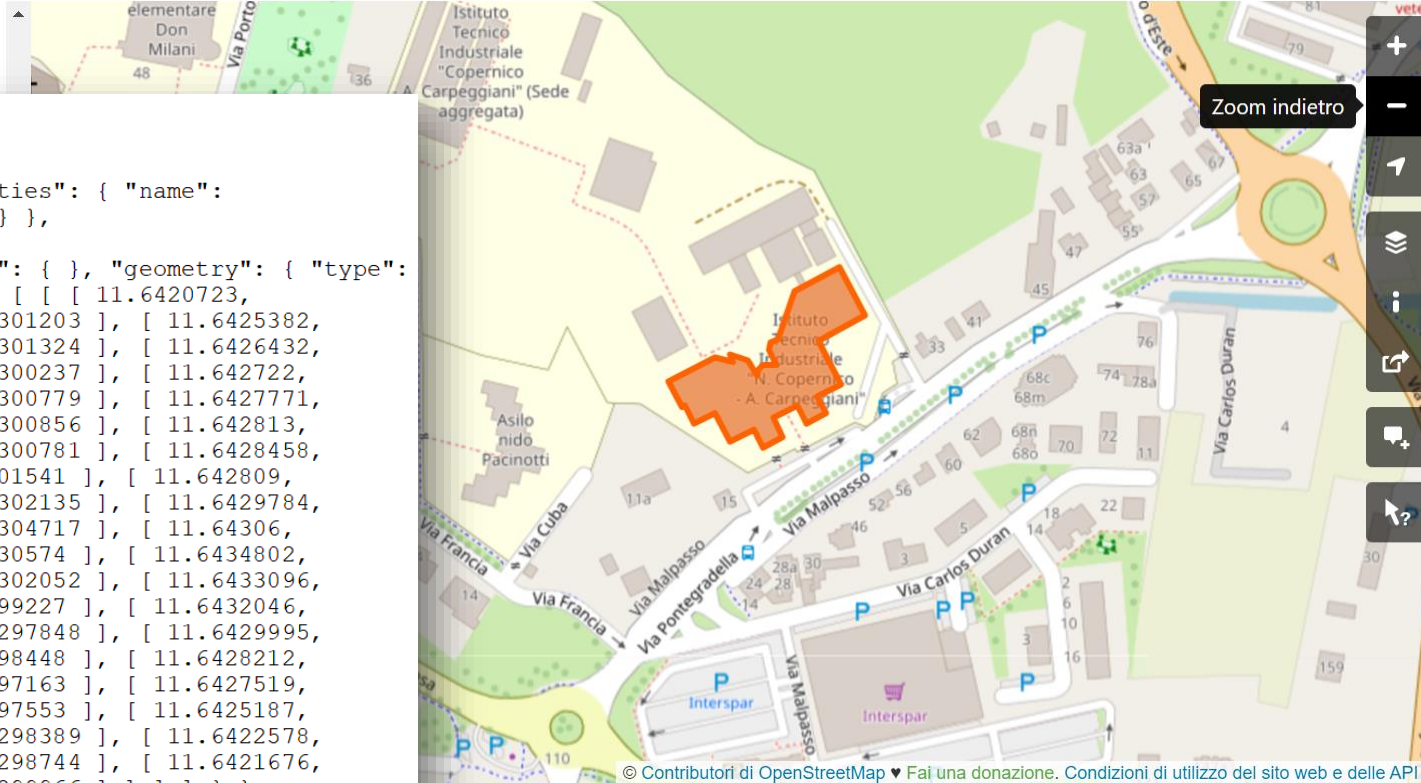
Nodi

Pilot buildings

as polygon

"N. Copernico - A. Carpeggiani"

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<https://www.openstreetmap.org/way/166785982>

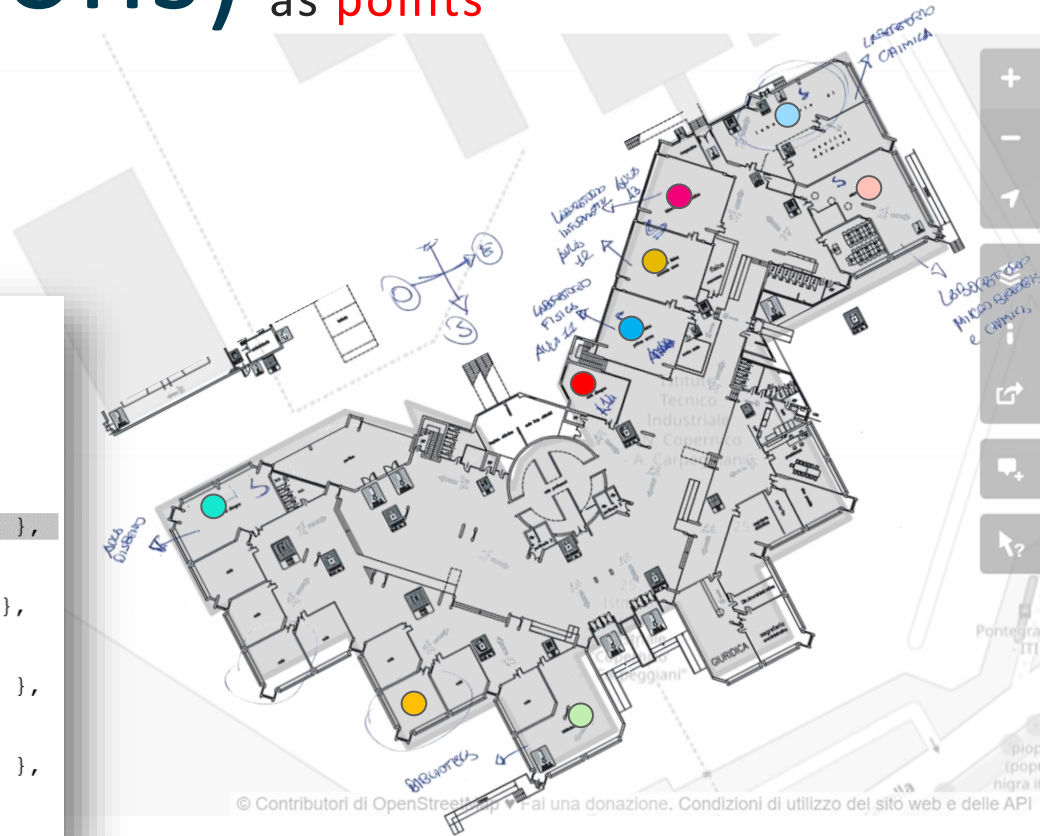
Location (stations) as points

"N. Copernico - A.
Carpeggiani"
(166785982)

Versione #4

(nessun commento)

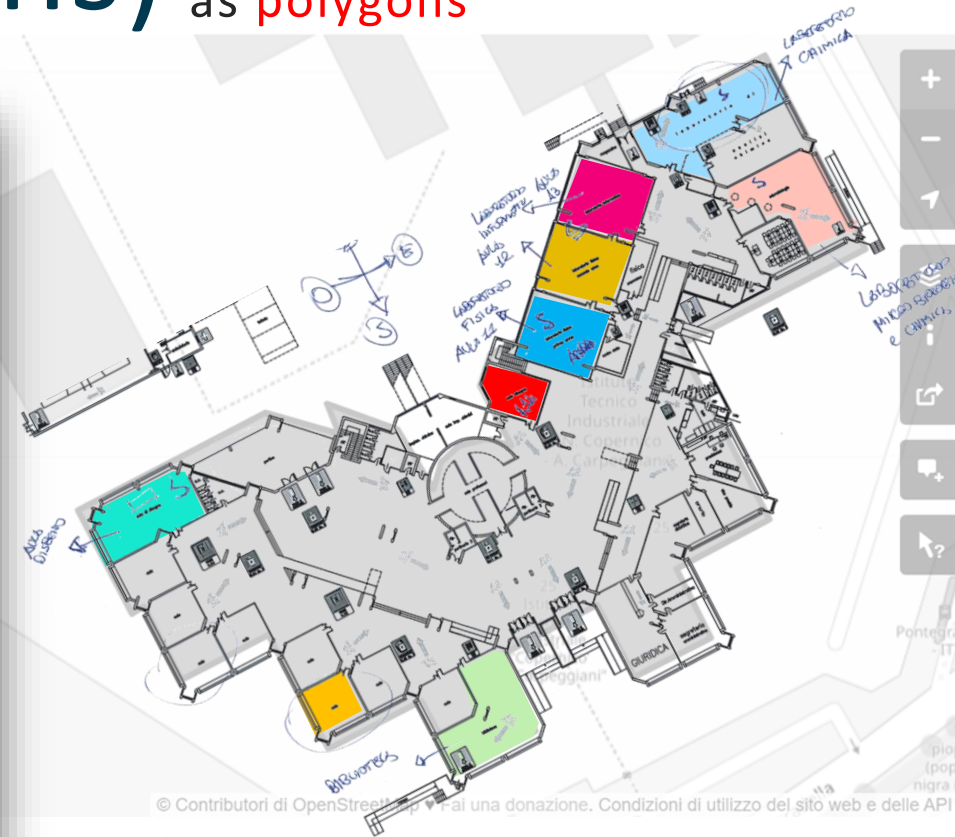
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}
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Location (stations) as polygons

"N. Copernico - A.

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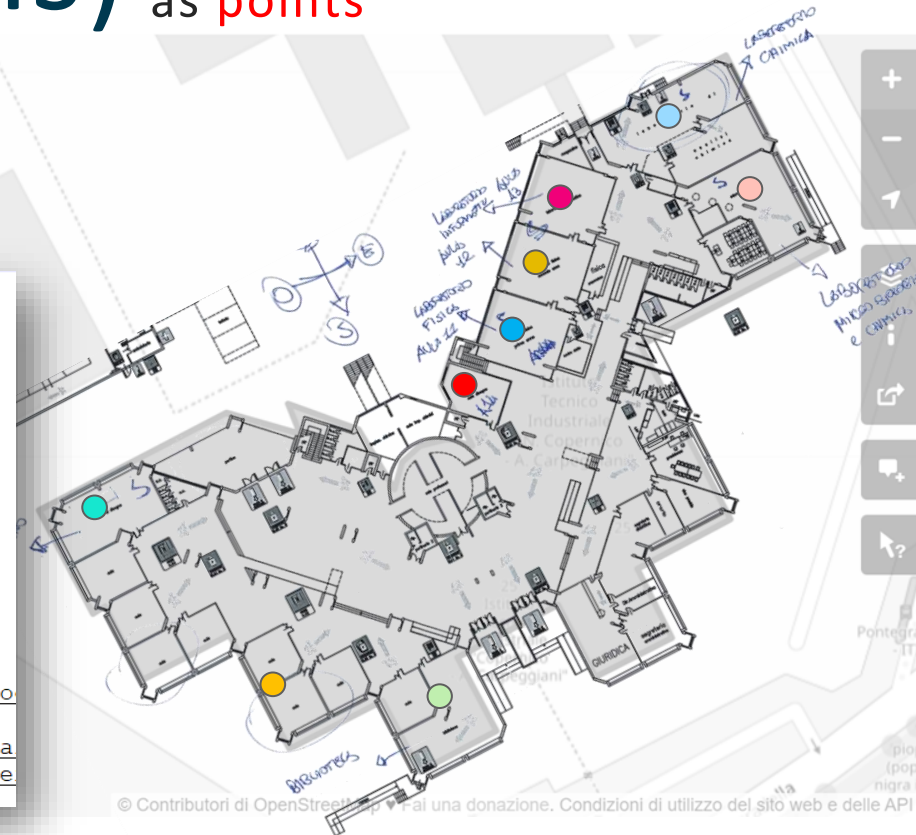


Location (stations) as points

"N. Copernico - A.
Carpeggiani"
(166785982)

Versione #4

```
{
  "description": "quota: 54m, Emilia Romagna",
  "encodingType": "application/vnd.geo+json",
  "@iot.id": "aq_preair_emiliaromagna_7000015",
  "location": {
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  },
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  "properties": {
    "organization": "aq_preair_emiliaromagna"
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  "HistoricalLocations@iot.navigationLink": "https://iot.comune.fe.it/FROST-Server/v1.1/Locations('aq_preair_emiliaromagna_7000015')",
  "Things@iot.navigationLink": "https://iot.comune.fe.it/FROST-Server/v1.1/Things('aq_preair_emiliaromagna_7000015')"
}
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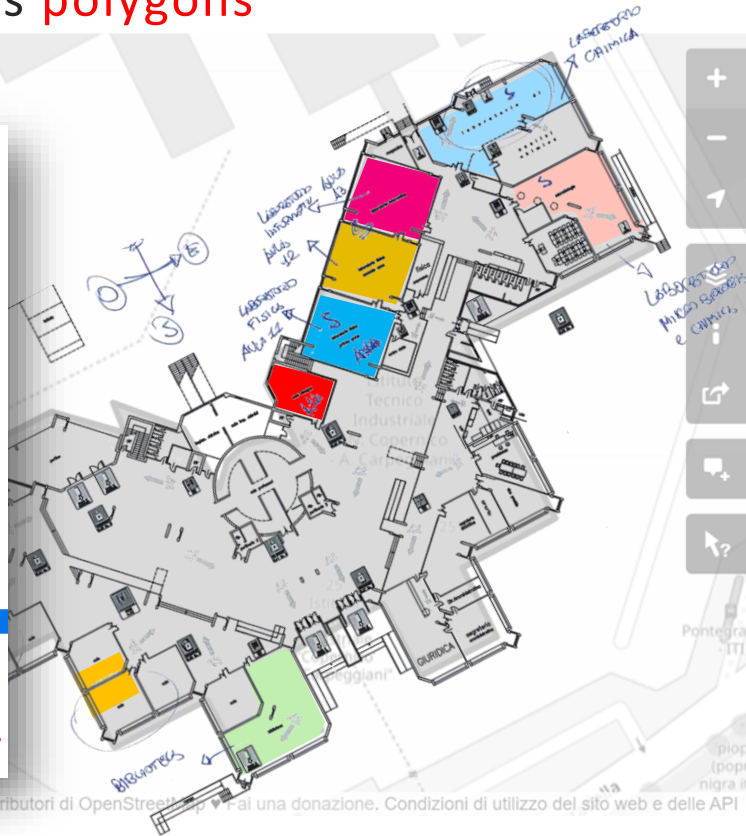
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Location (stations) as polygons

"N. Copernico - A.
Carnegiani"

```

@iot.selfLink: "https://demography.k8s.ilt-dmz.iosb.fraunhofer.de/v1.1/Locations(1)"
@iot.id: 1
name: "BG342"
description: "NUTS region BG342: Сливен"
encodingType: "application/geo+json"
location:
  type: "Polygon"
  coordinates:
    - 0:
      - 0: 26.59
      - 1: 42.92
      - 1: [...]
      - 2: [...]
      - 3: [...]
      - 4: [...]
      - 5: [...]
      - 6: [...]
      - 7: [...]
      - 8: [...]
  properties:
    type: "NUTS"
    level: 3
    scale: 60
    nutsId: "BG342"
    source: "https://ec.europa.eu/eurostat/de/web/qiscao/geodata/reference-data/administrative-units-statistical-units/nuts"
    nutsName: "Сливен"
    
```



Nodi

50 ft

Location (precision)

decimal places	decimal degrees	DMS	Object that can be <i>unambiguously</i> recognized at this scale	N/S or E/W at equator	E/W at 23N/S	E/W at 45N/S	E/W at 67N/S
0	1.0	1° 00' 0"	country or large region	111 km	102 km	78.7 km	43.5 km
1	0.1	0° 06' 0"	large city or district	11.1 km	10.2 km	7.87 km	4.35 km
2	0.01	0° 00' 36"	town or village	1.11 km	1.02 km	0.787 km	0.435 km
3	0.001	0° 00' 3.6"	neighborhood, street	111 m	102 m	78.7 m	43.5 m
4	0.0001	0° 00' 0.36"	individual street, large buildings	11.1 m	10.2 m	7.87 m	4.35 m
5	0.00001	0° 00' 0.036"	individual trees, houses	1.11 m	1.02 m	0.787 m	0.435 m
6	0.000001	0° 00' 0.0036"	individual humans	111 mm	102 mm	78.7 mm	43.5 mm
7	0.0000001	0° 00' 0.00036"	practical limit of commercial surveying	11.1 mm	10.2 mm	7.87 mm	4.35 mm
8	0.00000001	0° 00' 0.000036"	specialized surveying (e.g. tectonic plate mapping)	1.11 mm	1.02 mm	0.787 mm	0.435 mm