

# Mapping territoriale e georeferenziazione

## Il progetto OpenStreetMap

maurizio napolitano <napo@fbk.eu>



source: <http://stateofthemap.us/>



**OpenStreetMap** [Edit](#) [History](#) [Export](#) [GPS Traces](#) [User Diaries](#) [Copyright](#) [Help](#) [About](#) [Log In](#) [Sign Up](#)

Search  Where am I? [Go](#) [↗](#)

300 m  
1000 ft

© OpenStreetMap contributors [Make a Donation](#)





**OpenStreetMap** Modifica Cronologia Esporta Altro 1 napo

### Modifica elemento

Punto Linea Area Salva

**Area Scolastica** i

**Nome** 🗑️ i  
Scuola Media Statale "Galileo Galilei" +

**Operatore** i  
Sconosciuto

**Indirizzo** 🗑️ i  
Piazza Castello ▾ 1  
89125 ▾ Reggio di Calabria ▾

**Telefono** 🗑️ i  
+390965892030

[Vedi su openstreetmap.org](https://openstreetmap.org)

50 m 🗨️ A 1.8.3







<http://osmlab.github.io/show-me-the-way/>







# Map Compare

Search Help Overlay: None

Choose map type: OSM Mapnik

Choose map type: Lyrk (OSM)

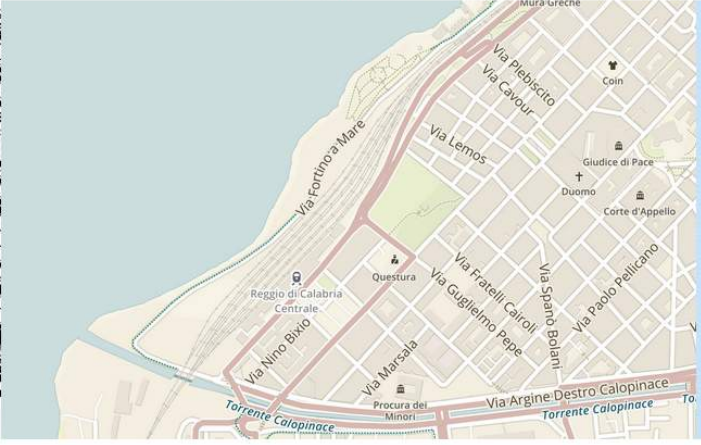
Choose map type: OSM Hike&Bike



Choose map type: OSM Toner

Choose map type: MapBox Terrain

Choose map type: Mapquest EU (OSM)



© 2015 BBBike.org & Geofabrik GmbH - map data © OpenStreetMap.org contributors - extracts - help - contact - console - fullscreen

lng,lat: 15.63154,38.10774 zoom=16 number of maps: 1 2 3 4 6 8 share

[http://mc.bbbike.org/mc/?lon=15.637305&lat=38.104576&zoom=16&num=6&mt0=mapnik&mt1=lyrk&mt2=hike\\_bike&mt3=toner&mt4=mapbox-terrain&mt5=mapquest-eu&marker=](http://mc.bbbike.org/mc/?lon=15.637305&lat=38.104576&zoom=16&num=6&mt0=mapnik&mt1=lyrk&mt2=hike_bike&mt3=toner&mt4=mapbox-terrain&mt5=mapquest-eu&marker=)











# Gardaland

Map Compare

Choose map type: **OSM Mapnik** | Choose map type: **Google Map** | Search | Help | Overlay: None

50 m | 100 ft

Map data ©2015 Google

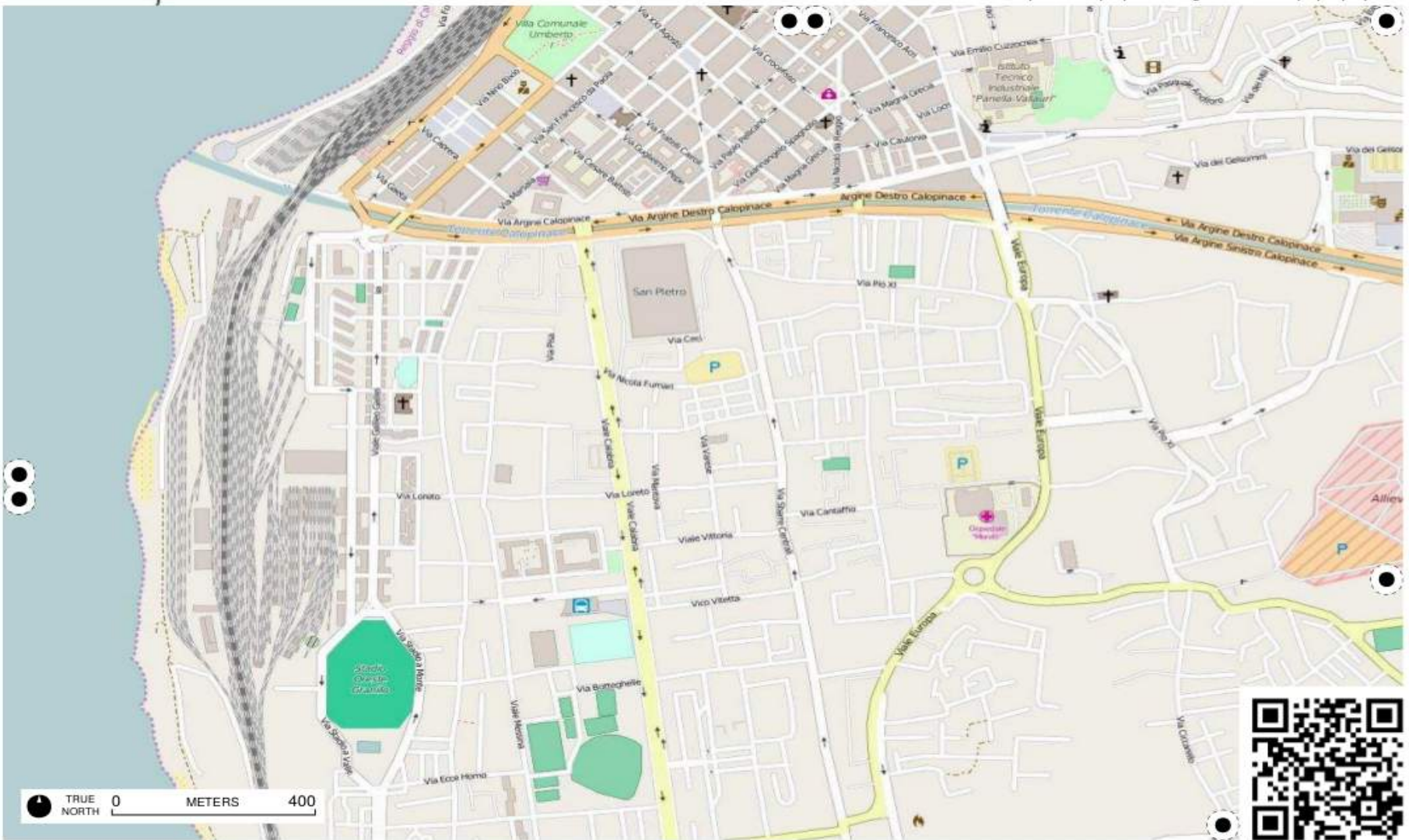
Ing, lat: 10.70715,45.46014 | zoom=17 | number of maps: 1 2 3 4 6 8 | share





# Field Papers

<http://fieldpapers.org/atlasses/3pq9qvqi/A1>





OpenRouteService.org

[Wheelchair routing profile beta test version click here](#)

[Site Preferences](#) [Info & Contact](#) [GIScience](#)

**A** Plan Route

Search

▼ Route options:



- Vehicle up to 3.5t
- Agricultural vehicle
- HGV
- Forestry vehicle
- Bus
- Delivery

Hazardous Materials

length width height weight axle load

15

Truck Parameters (in meters/tons)

maximum speed  set

**A** avoid road types  avoid areas

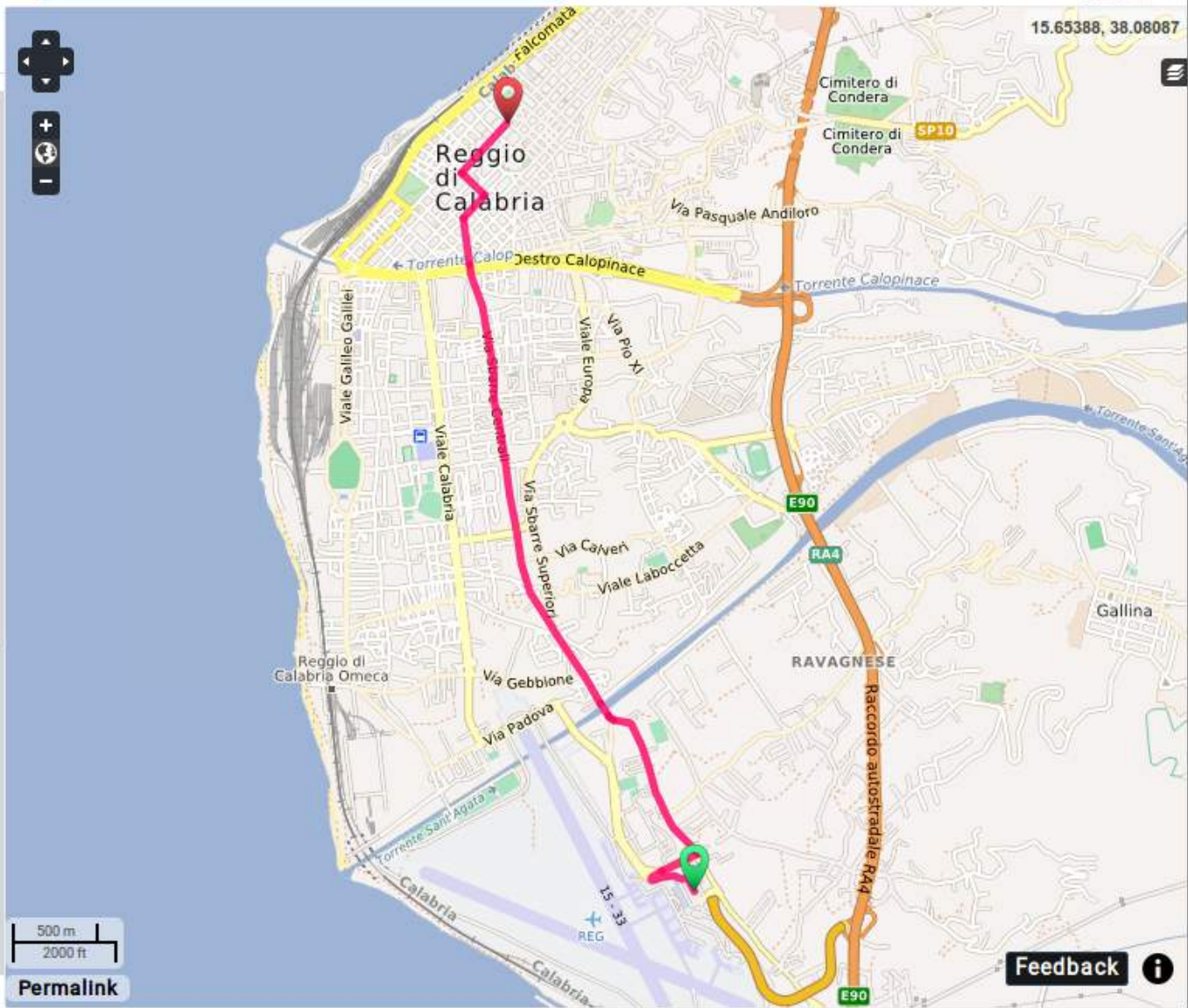
Via Ravagnese Inferiore  
89131 Reggio di Calabria (Ravagnese) , RC, Calabria, Italy

(c) 2008-2015 - [Disclaimer](#) - [License](#)



500 m / 2000 ft

**Permalink**







**Plan Route**

Search

Via Tommaso Campanella  
89125 Reggio di Calabria (Ravagnese) , RC, Calabria, Italy

enter an address

add waypoint

Route extras:

Recursive Grid

Isochrone method

5

Select minutes

3

Isochrone interval in minutes

Analyze

Remove

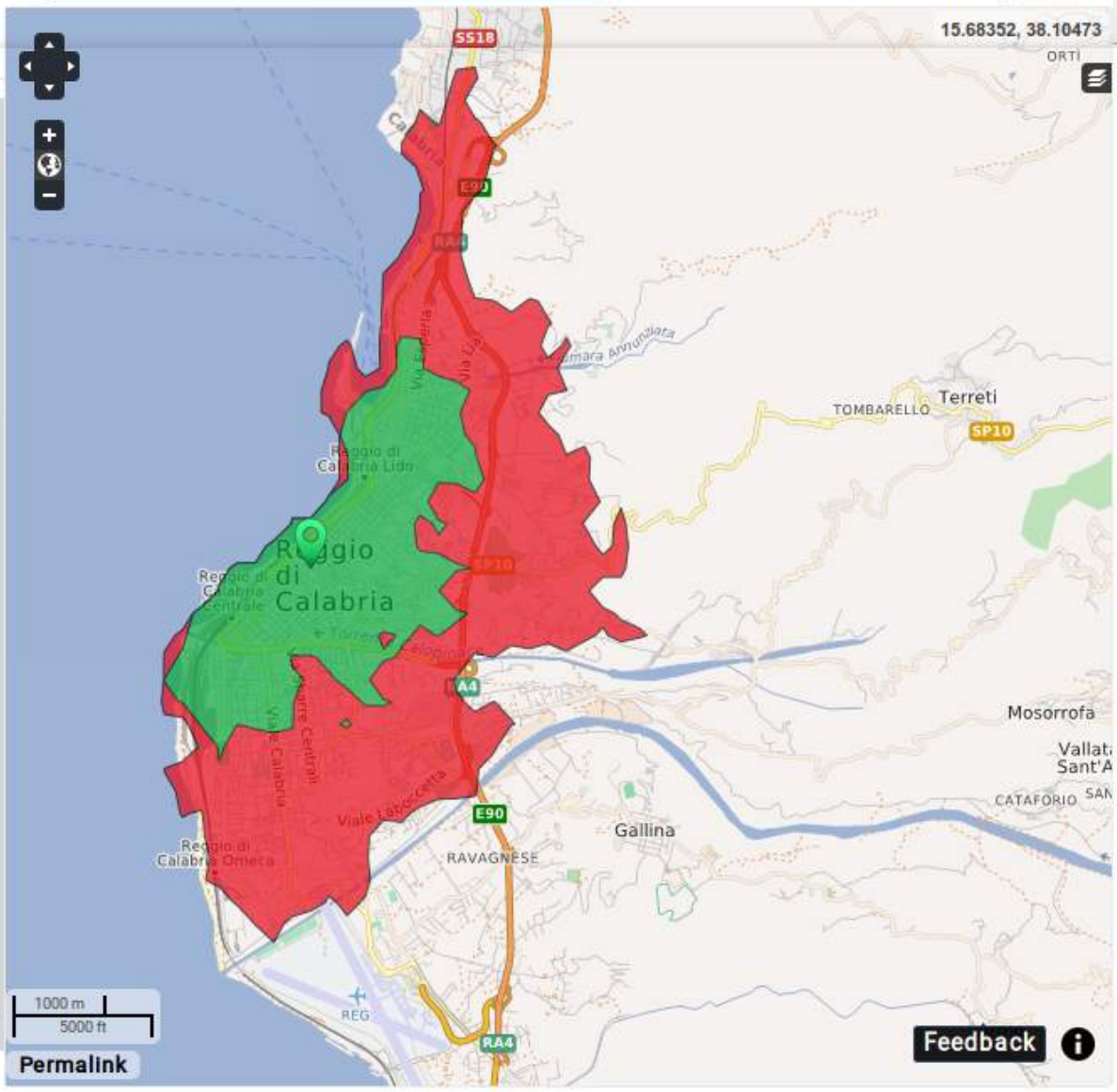
Accessibility analysis

Import/ Export

Export GPX

Upload GPX files

GPX-Features





Thank you for having been part of this years' State of the Map US!  
All session videos are up now. Check out our program to browse talks and watch videos.

[Program](#) [Social events](#) [Scholarships](#) [Venue](#) [About](#)



JUNE  
6 - 8

Discuss  
improving the  
map worldwide

Join the movement  
at the biggest  
OpenStreetMap  
conference ever.



LOCATION  
**United Nations  
headquarters**  
New York City

Whether you're a  
mapper, use





## NYC State of the Map US 2015

[Program](#)  
[Scholarships](#)  
[Venue](#)

[About](#)  
[Social events](#)  
[Orientation guide](#)

[Code of conduct](#)

### Funding made possible by our generous sponsors

#### PLATINUM



#### GOLD



#### SILVER



#### BRONZE

[AW Tech USA](#) [CartoDB](#) [Facebook](#) [Foursquare](#) [Knight Foundation](#) [Microsoft](#)  
[NYC DoITT](#) [Nutiteq](#) [craigslist](#) [Factual](#) [Omidyar](#)

#### Partners

[NYC DoITT](#) [American Red Cross](#) [Citymaps](#)





Mapbox is an open source mapping platform for developers and designers at enterprise scale.

**BUILT FOR DEVELOPERS**

**Build mobile and web applications**

Our open source APIs and SDKs let you quickly style and edit custom maps to your application, like pinning travel spots on Pinterest, finding restaurants on foursquare, and visualizing data on GitHub.

[Get coding →](#)



**TOOLS FOR DESIGNERS**

**Design beautiful interactive maps**

Quickly create beautiful interactive maps and data visualizations using our open source design studio, TileMill, and one click publish directly Mapbox.com to share with the world.

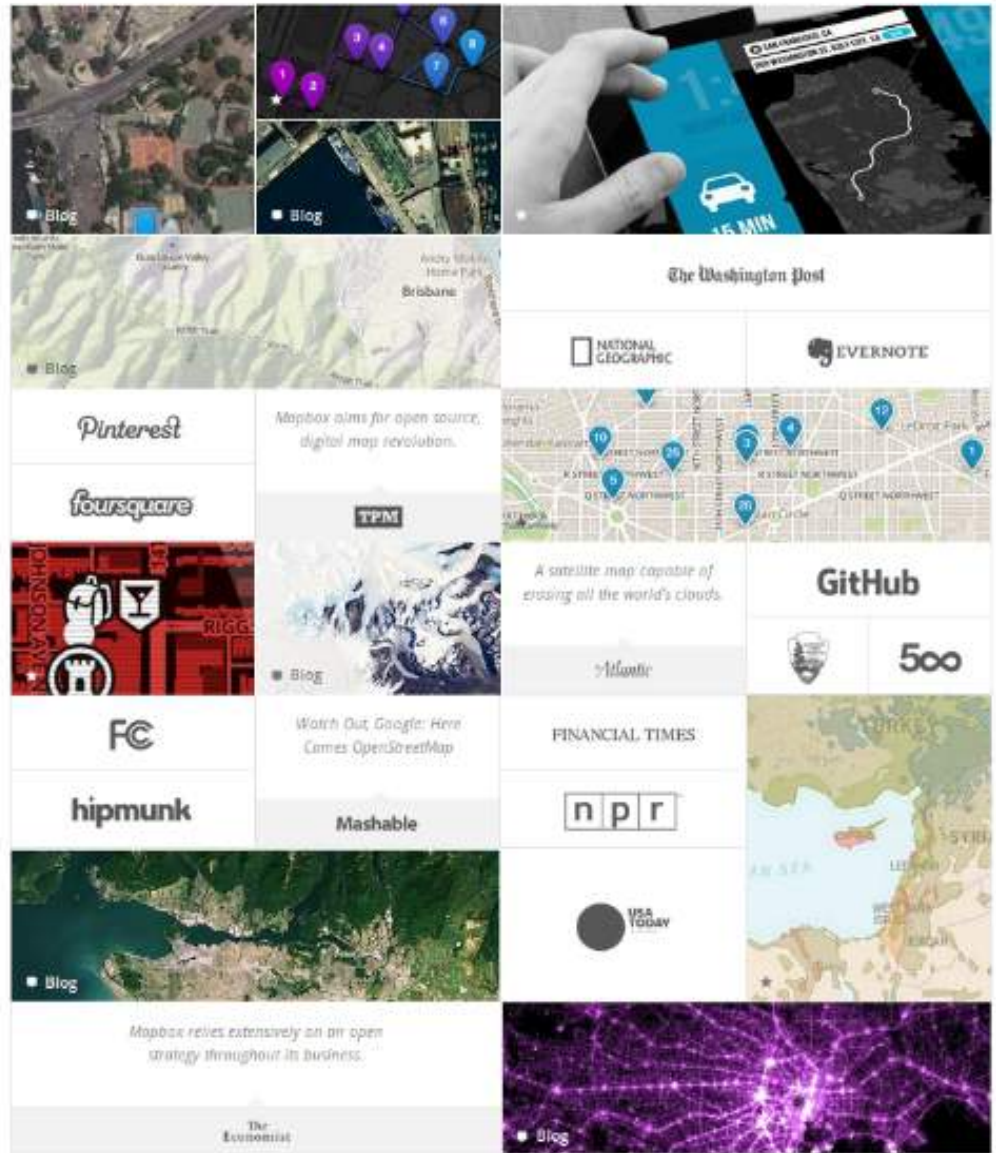
[Design maps →](#)

**SCALE FOR ENTERPRISE**

**Enterprise high volume plans**

Mapbox Enterprise provides high volume plans for massive traffic, big storage, and dedicated support. Basically it's everything we do at Mapbox already, just tailored to your custom enterprise needs. Contact us at [enterprise@mapbox.com](mailto:enterprise@mapbox.com) for more information.

[Read case studies →](#)







FAST FEED

## MAPBOX, A GOOGLE MAPS RIVAL, GETS \$10 MILLION IN FUNDING

IN A WIN FOR OPEN-SOURCE MAPPING SOLUTIONS, STARTUP MAPBOX HAS NAVIGATED ITS WAY TO A BIG CASH INJECTION

BY KIT EATON



**MapBox Inc. has big ambitions to rival Google Maps with an open-source solution.**

The company of about 35 staff may be small, but it has just raised \$10 million in Series A funding from Foundry Group.

MapBox's main offering is a cloud-based mapping system that makes it easy for third parties to install maps into their products, ranging from web pages at news sites to much larger location-based services (Foursquare and Uber already both use MapBox). Its revenues are based on these installations, charged on a per "map view" basis with prices hovering at roughly 50 cents per 1,000 views.

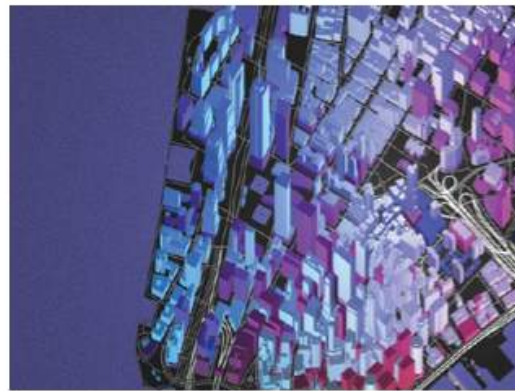
The company's mapping data is collated from open sources like OpenStreetMap.org. Since this data is generated by thousands of continuous inputs from people around the



# MAPZEN

## an open-source mapping lab

Mapzen builds open-source mapping tools and collaborates on open geodata initiatives.



Tangram is a flexible mapping engine, designed for real-time rendering of 2D and 3D maps.

[LEARN MORE](#)

[VIEW ON GITHUB](#)

Mapzen Turn-by-Turn is an open-source routing service for client-side routing applications.

[LEARN MORE](#)

[VIEW ON GITHUB](#)

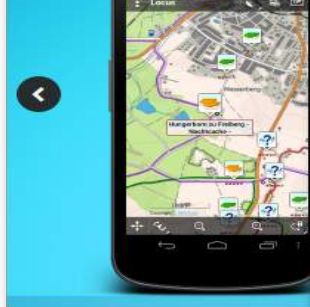


Mapzen Search is a geographic search engine for places based entirely on open-source tools and powered by entirely open data.

[LEARN MORE](#)





**Locus**

**Features**

- Offline maps
- Track recording
- Navigation

### 2014 Audi Sat Nav Disc

[satnavmap.com](http://satnavmap.com)

Sat Nav Map DVD Update Disc £19.99 Get the latest 2014

---

**OruxMaps**

**New version: OruxMaps v.5.5.18! (AVAILABLE IN THE GOOGLE PLAY STORE)**

**Test next version (5.5.x)**

OruxMaps is a FREE application for Android.

OruxMaps is a map viewer. It can work in two modes: online maps, and offline calibrated maps for OruxMaps

If you want to work offline, you need to calibrate your own maps. It is needed:

- You can create your offline maps from online sources, with the built-in Map Creator (See the manual section)
- Create a map from scratch with a customized version of TB Atlas Creator

- MAIN MENU**
- OsmAnd
  - Download / First Steps
  - Plugins
  - Screenshots**
  - How To + FAQs
  - Blog
- RESOURCES**
- Project Site (Google Code)
  - Forum (Google Group)
  - Source Code (github)
  - OsmAnd release builds
  - OsmAnd nightly build
  - OsmAnd CZ
  - OSM Homepage
  - Administrator

Home > Screenshots

### Screenshots

**Main menu**

**Detailed map view**

**Pedestrian mode with viewing-direction**

**Route details**

Total distance 9.5 km, travelling time 0 h 12 m.

- 80 m Head Via Vittorio Veneto 00:08
- 80 m
- 136 m Turn left and go Via Principessa Pignatelli 00:13
- 136 m

OsmAnd translation 77% done

116 Users

I USE IT



# BATTLEFIELD 4 (BF4) IMAGES

LEADERBOARDS > ASSAULT RIFLES > M416

ALL TIME

Region	Rank	Score
FRIENDS	#6	
LIPPSALA	Top 5%	
UPPLAND	Top 70%	
SWEDEN	Top 25%	
WORLD	Top 5%	

M416 Most kills

Rank	Player	Kills
1	ogafriehson	16,654
2	cgjystrom	15,558
3	JRipley	15,330
4	Sodabukt	15,135
5	fio	14,657
6	TheBiking/king	14,301
7	Indigwend	13,719
8	DarkLord7854	11,503
9	dnkx3337	11,334
10	Flag-E	10,964
692	MHESLOW	7,843

VIEW SPECIFIC ASSAULT RIFLE

BF4 SCREENSHOTS - BATTLELOG LEADERBOARD

SAR 21 Top 25%  
 AEK 971 Top 25%  
 FAMAS Top 7%

# MAP OF THE DEAD

## ZOMBIE APOCALYPSE SURVIVAL

Find places around you to help you survive the zombie apocalypse. [OPEN THE MAP](#)

MAP LIST

ALERTS

Get the iPhone game and fight to survive. [GET THE GAME](#) Download on the App Store





Trento, centro storico



MapOSMatic  
<http://maposmatic.org>

Orienteering  
<http://oobrien.com/oom/>

OPENORIENTEERINGMAP © 2014

Load saved map #1:  Lead  Jump to Postcode:  Jump

Scale: 1:4000 1:5000 1:7500 1:10000 1:12500 1:15000 1:20000

Sheet: A4 A3 RA3 Orientation: Portrait Landscape  Delete

Save & get PDF map  Show clue sheet

Tip: click to add controls, or drag the blue marker to move the map. Once done, click "Save & get PDF map".

**GRAHAME PARK**

Grahame Park		<input type="checkbox"/>
1:7500		10m contours
30 minute score. 1 point penalty for every 3 seconds late back.		
10 controls	160 points	
1	10 Post box number	<input checked="" type="checkbox"/>
2	10 Post box number	<input checked="" type="checkbox"/>
3	10 Colour of do...	<input checked="" type="checkbox"/>
4	10 Colour of do...	<input checked="" type="checkbox"/>
5	10 Fire hydrant...	<input checked="" type="checkbox"/>
20	20 Number of tr...	<input checked="" type="checkbox"/>
21	20 Name of road	<input checked="" type="checkbox"/>
22	20 Gate closes at:	<input checked="" type="checkbox"/>
23	20 No ... at...	<input checked="" type="checkbox"/>
20	20 Name of chemist	<input checked="" type="checkbox"/>

Supported by  
British Orienteering  
Created by Zhenz CFB/ies  
Attribution (OSM, Ordnance Survey)  
More Information Comments









Tracolla

Let's have your map!

## PARLANO DI NOI

### Shop on line

Posted by dressmap | domenica, 23 no



### The shop is open!

mercoledì, 14 gennaio 2015



### Torino Style

giovedì, 5 dicembre 2013

Un articolo sul blog Torino Style in merito alla rassegna Byhand 09. Nella rassegna non manca una



### Rassegna stampa

giovedì, 28 novembre 2013

Fervono i preparativi per Byhand 09, il quotidiano La Stampa dedica un articolo alla rassegna. Byhand permette di esporre abiti e accessori a tiratura limitata, [...]

**Grazie**

Per contatti

Twitter: @napo

Blog: <http://de.straba.us>

Slide: <http://slideshare.net/napo>

Email: [napo@fbk.eu](mailto:napo@fbk.eu)



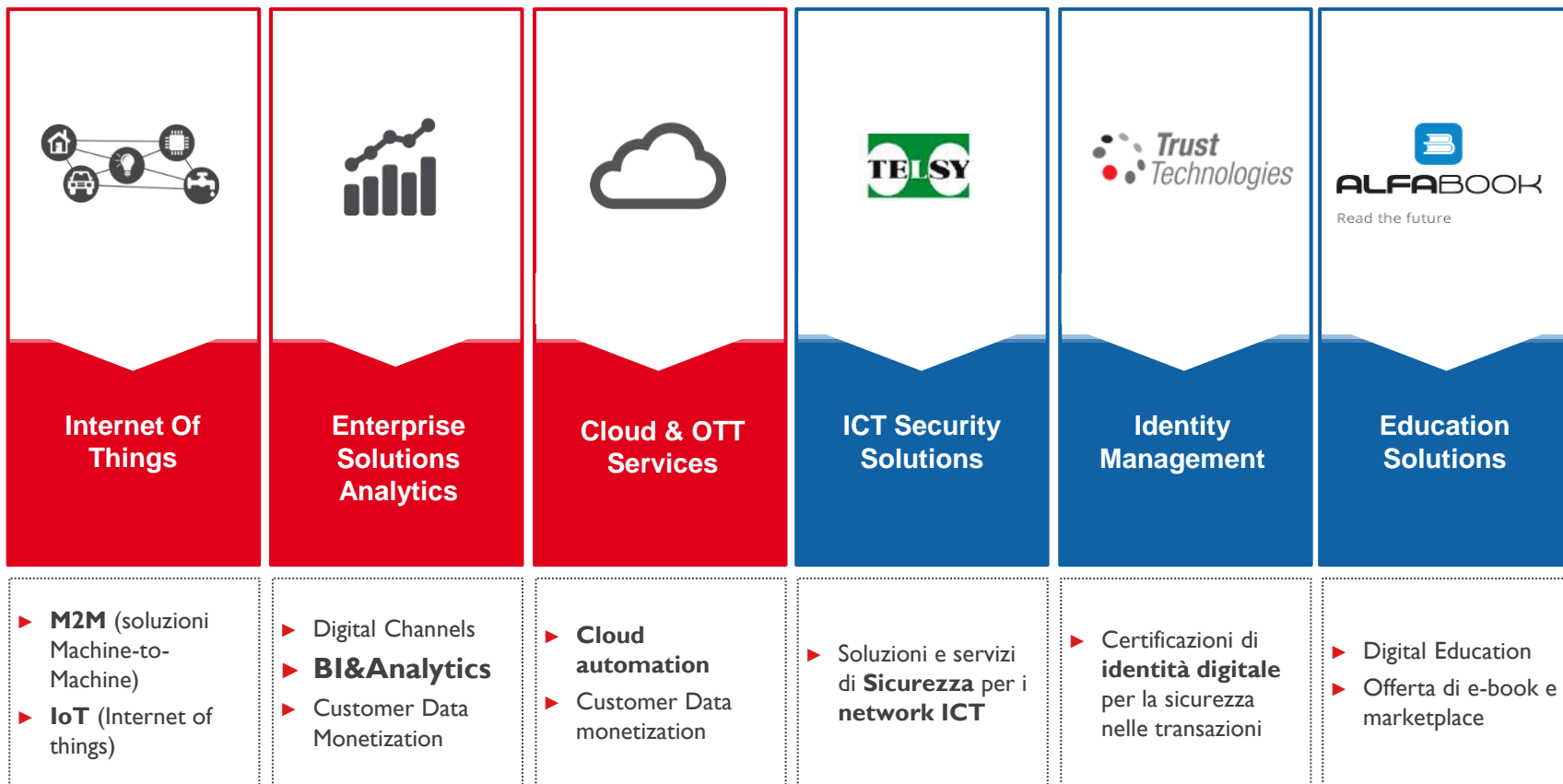


## Telecom Italia Digital Solutions

Giuseppe Sola – Responsabile Marketing Enterprise Solutions -  
Forum Innovazione Reggio Calabria  
15 dicembre 2015

## TI Digital Solutions: overview

Telecom Italia Digital Solutions è organizzata come una "mini holding industriale", con LoB/aziende focalizzate su diversi settori di attività e su un'ampia gamma di servizi digitali





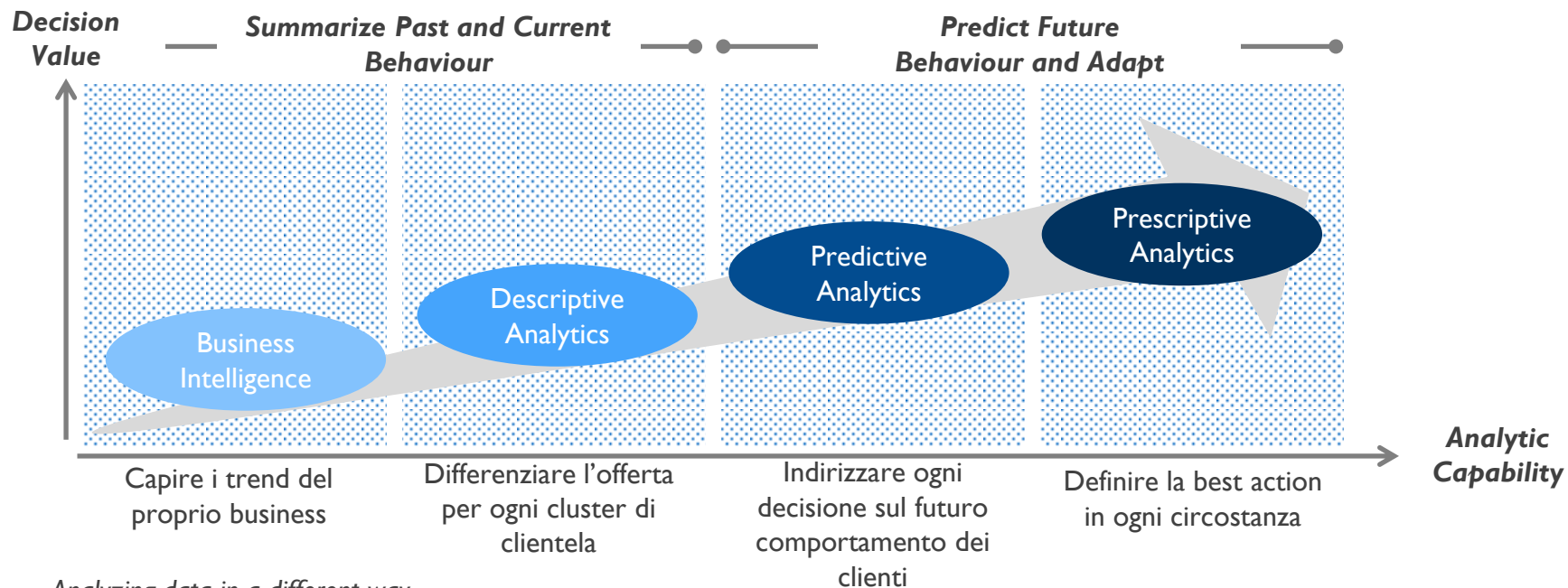
## L'importanza di infrastrutture e strumenti in un mondo di dati

«La scienza è fatta di dati come una casa è fatta di pietre.  
Ma un ammasso di dati non è scienza più di quanto un  
mucchio di pietre sia una vera casa»

*Henri Poincaré*

# L'evoluzione degli Analytics

Dalla BI agli Advanced Analytics



...Analyzing data in a different way...

Data & Analysis



Data

Multiplicity of Data Sources

Real Time Analysis



L'evoluzione dei sistemi di raccolta ed analisi dei dati abilita l'identificazione delle Next Best Action





- **TIM Big Data Challenge 2015** è una iniziativa di **Open Innovation** di respiro internazionale che mette in contatto le società che hanno i dati con coloro, nel mondo accademico e industriale, che hanno le **competenze e le tecnologie necessarie per metterle a valore**
- Attraverso una competizione che richiama i partecipanti ad una sfida di **migliori idee a partire da un dataset fornito**, il contest mira a raccogliere **progetti Big Data innovativi** che possano rappresentare un'**opportunità di business** nel breve e medio termine per TIM e per i suoi partner, e per **identificare le realtà più promettenti** nel panorama Big Data

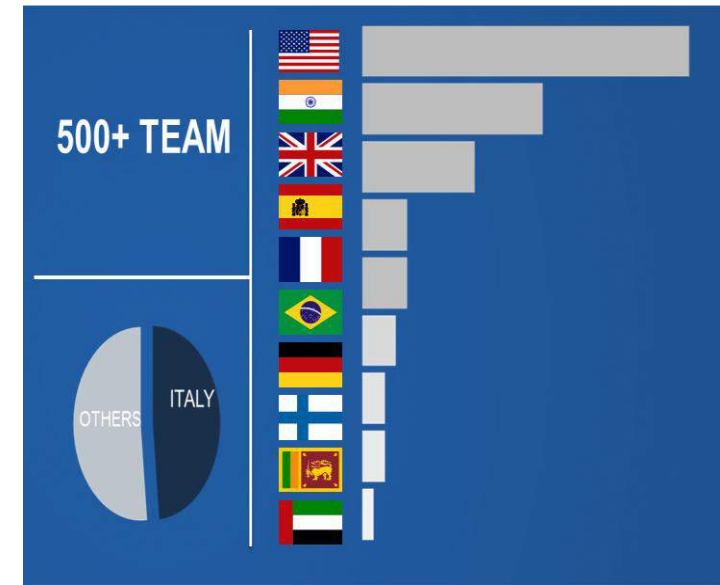
## PARTNERS



## DATA

Class	Type	Data provider partner
Communication/Mobility	Mobile network data	TIM
Energy	Energy consumption	IREN
Private mobility	Private vehicles GPS data	InfoBLU, Viasat
Official Statistics	Census micro data	ISTAT
Business	Business data	CERVED
Insurance	Accidents data	Unipol
Social Network	Social Network data	Twitter

## PARTICIPANTS

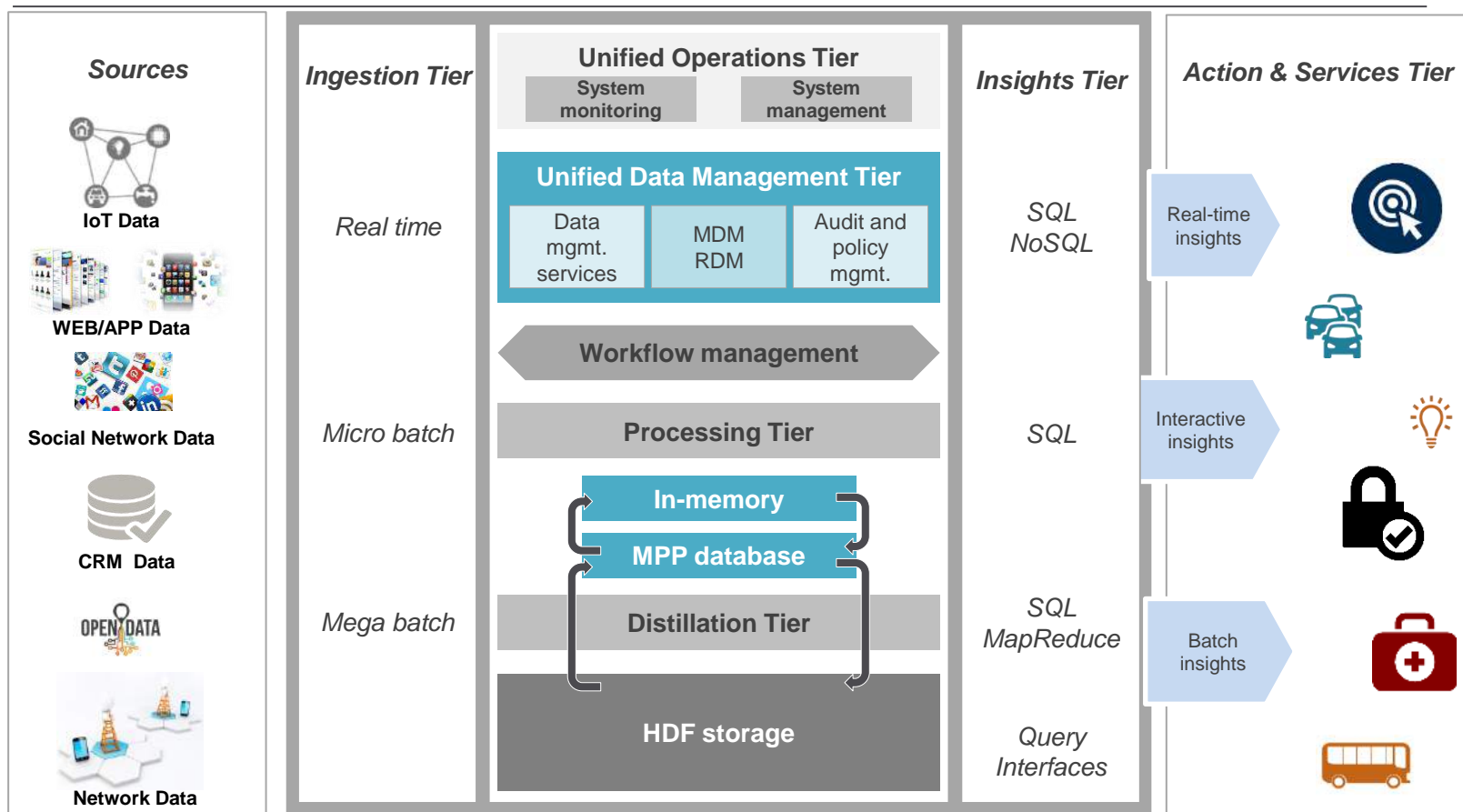




# La Piattaforma Big Data Value

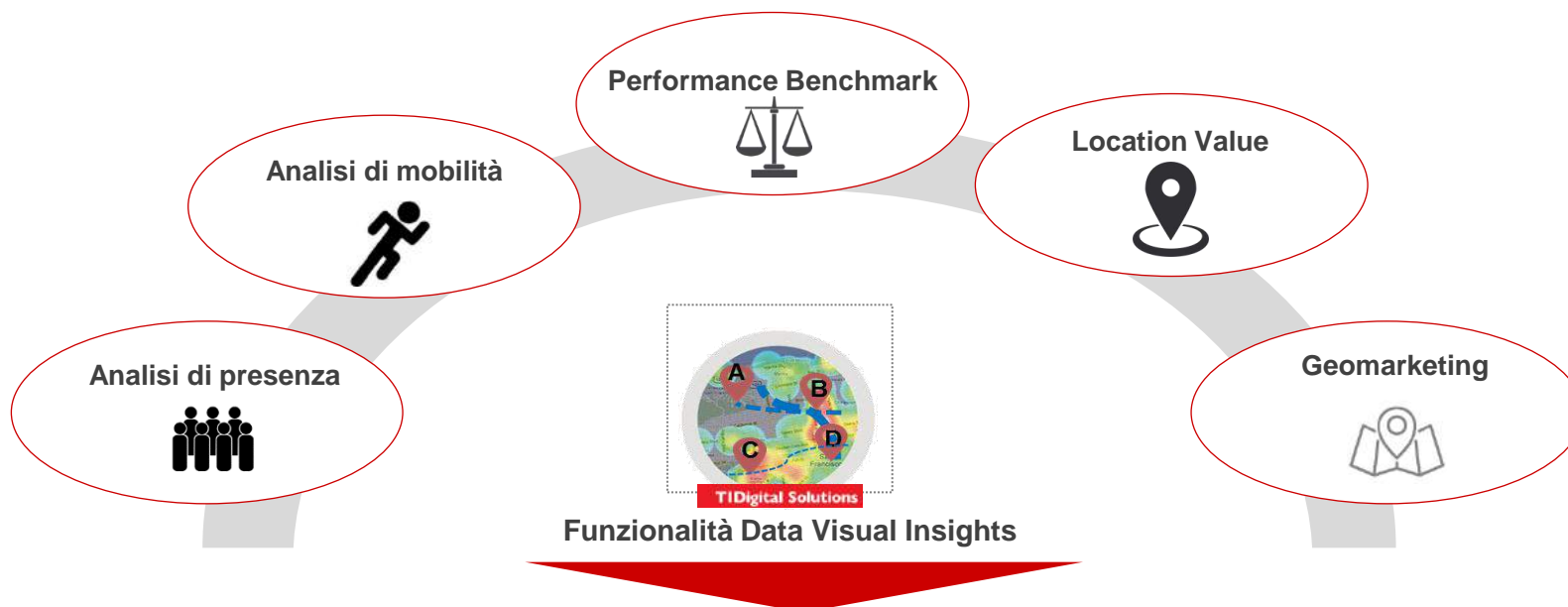
Abilita lo sviluppo di soluzioni volte all'engagement dei clienti, dei cicli e dei processi aziendali lungo l'intero ciclo di vita

**TIDigital Solutions**



# TIM Big Data Value

I nuovi servizi di Telecom Italia per Big Data



► **Analisi di presenza**  
abilita gli scenari "Chi c'è" e "Chi è?", consistenti in analisi di densità della popolazione

► **Analisi di mobilità**  
abilita gli scenari "Dove vai?" e "Da dove vieni?", consistenti in analisi di provenienza e spostamento degli utenti TI

► **Performance benchmark**  
permette la misurazione e comparazione di performance tra punti di interesse

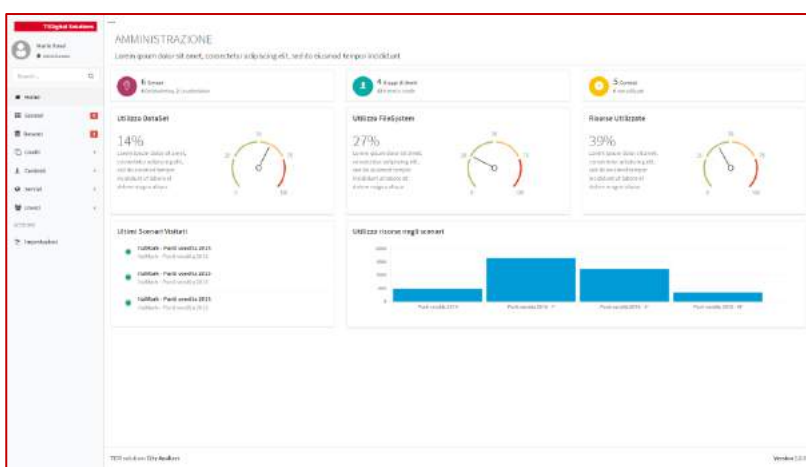
► **Location value**  
permette di valutare il potenziale di una specifica location

► **Geo-marketing**  
permette di effettuare attività promozionali / commerciali mirate,

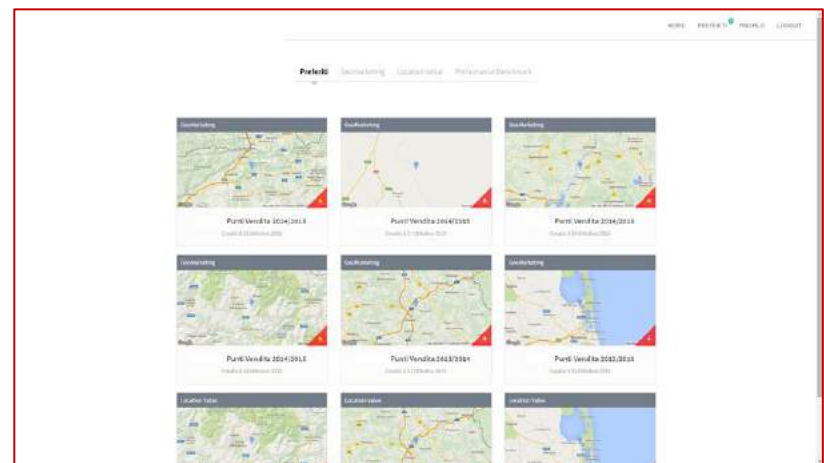


# TIM BIG Data Value – Data Visual Insights -

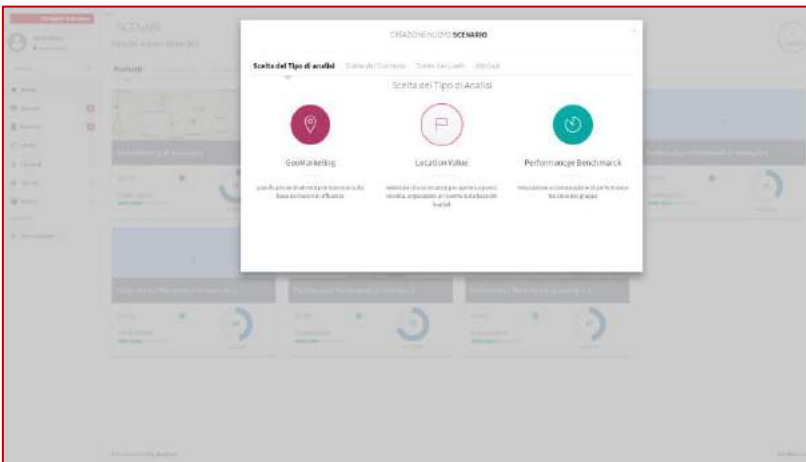
## Cruscotto di Amministrazione



## Vista Aree di Interesse



## Impostazione Filtri Analisi

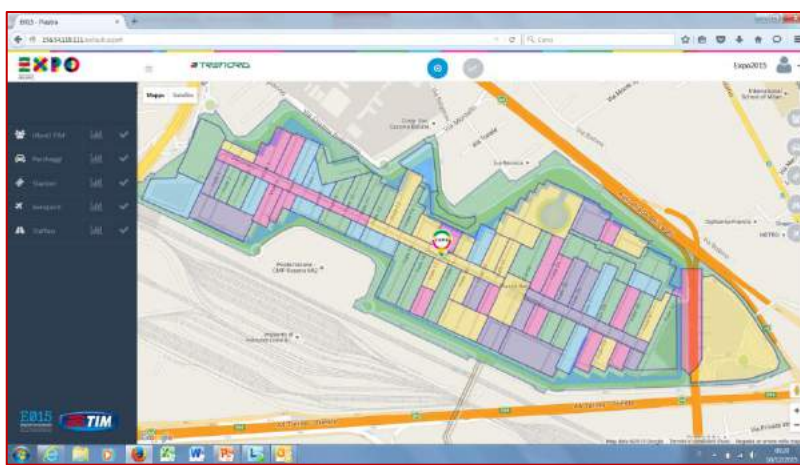


## Mappe di Densità per FSA



# TIM BIG Data Value per EXPO 2015

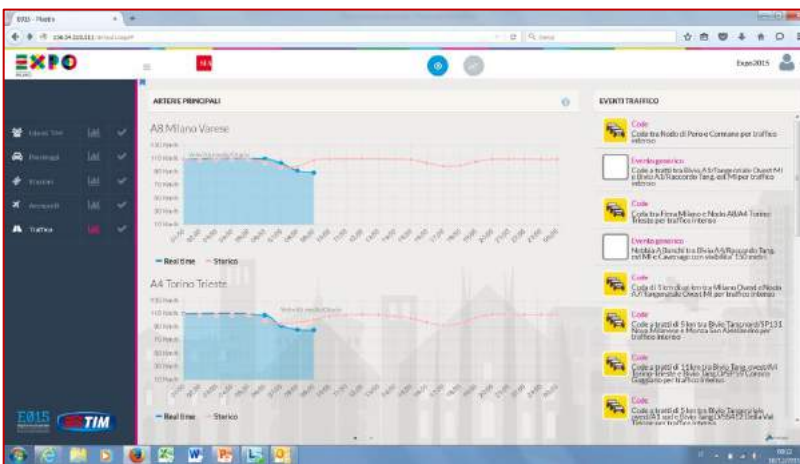
## Area Expo



## Utilizzo Parcheggi Expo



## O/D da principali Arterie Stradali



## O/D da Aeroporti





«Big Data sono come il sesso tra gli adolescenti:  
«tutti ne parlano,  
nessuno sa realmente cosa sia,  
tutti pensano che gli altri lo facciano,  
così tutti dicono di farlo»



Dan Airely

(docente di Psicologia ed Economia Comportamentale, MIT)

IL FUTURO FIRMATO  
TELECOM ITALIA.



**TIDigital Solutions**

---

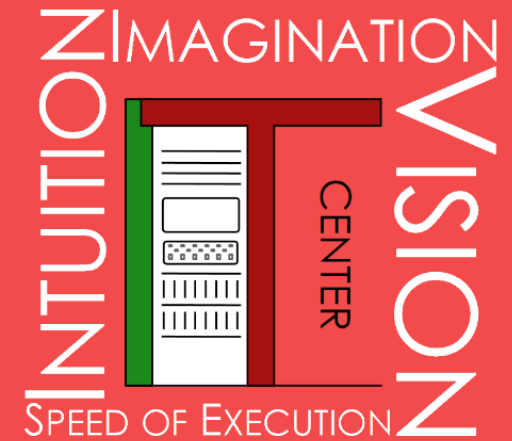
# L' ANIMA DIGITAL DI TELECOM ITALIA

---

*#fanaticsofdigital*

IL FUTURO FIRMATO  
TELECOM ITALIA.





# La figura del data scientist IT Center @Unipisa

Antonio Cisternino

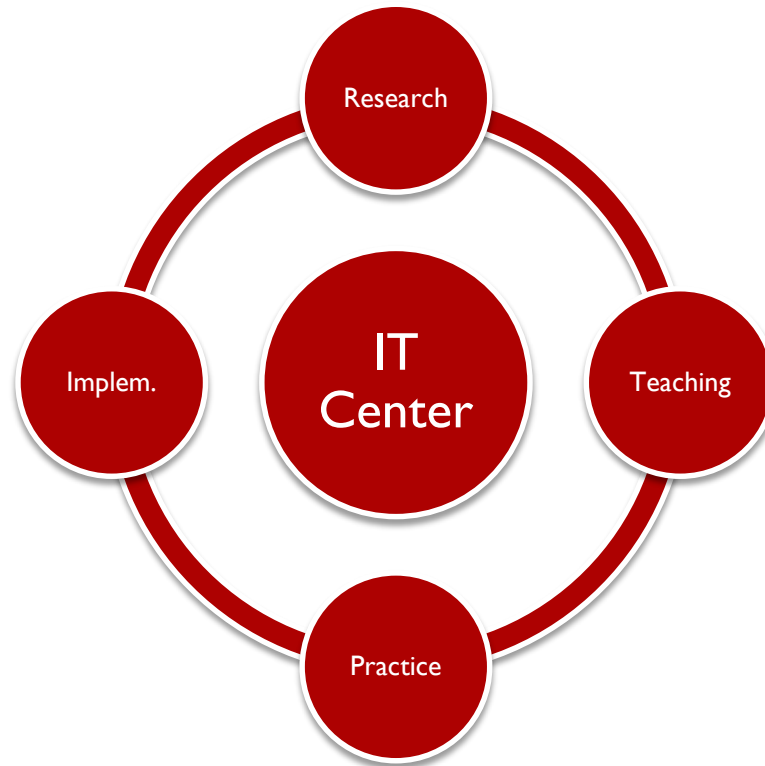


UNIVERSITÀ DI PISA



# Cross-roads

---



# Partner

---

- ▶ Dell Corp.
- ▶ Intel Corp.
- ▶ Microsoft Italia
- ▶ Schneider Electric
- ▶ Veeam
- ▶ ...

# Attività relative ai big data

---

## Dell/Intel/Cloudera

- Cluster 8 nodi Hadoop (100Tb)
- Unico centro di formazione Cloudera accreditato in Italia

## Microsoft

- Data-Insight immersion

## Dell

- Statistica competence center



# Big Data?

# Il cannocchiale per vedere i big data

---



La via lattea si stima  
contenere tra 200 e 400  
miliardi di stelle

# Houston we got a problem...

---

- ▶ Un uomo che ascolta audio per 100 anni senza interruzioni è capace di processare al più 100Tb di dati
- ▶ Con la vista non va molto meglio... 100 anni di video a risoluzione DVD sono poco più di 2Pb di dati
- ▶ Ogni giorno vengono prodotti 2.5Eb ovvero 100.000 anni di video!
- ▶ Molta informazione è poco utile o ridondante, ma in ogni caso *l'uomo è divenuto un collo di bottiglia del sistema*





# Esempio: Urban Mobility Atlas of a CITY

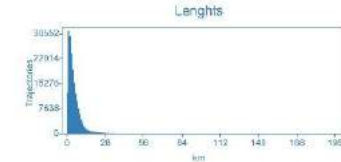
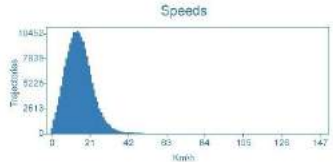
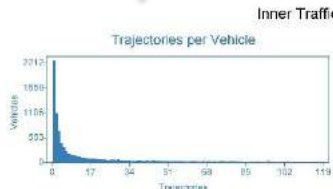
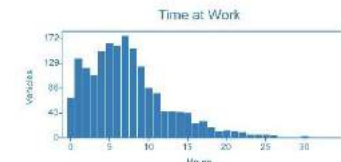
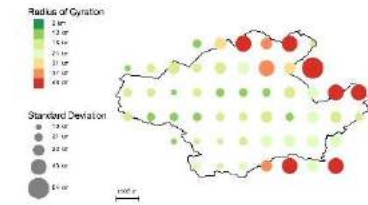
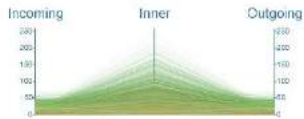
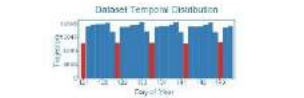
## Firenze

Surface area: 105 km<sup>2</sup>

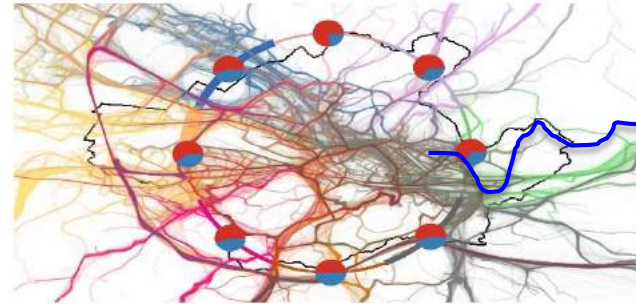
Coordinates: 43.78 11.24

Vehicles: 32.752

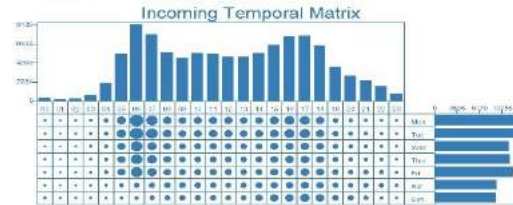
From: 2011-05-01 To: 2011-05-31



## Incoming Traffic (105.881 Trajectories)



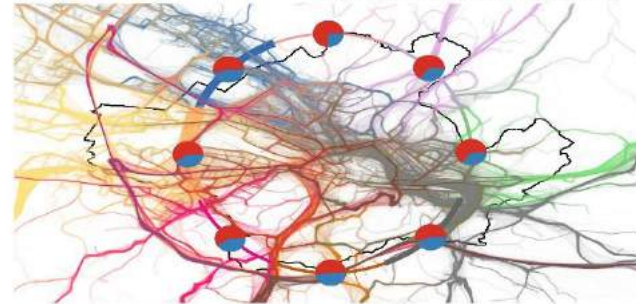
	City	Traj	Perc
NORD 13%	Sesto Fiorentino	8.122	85%
	Calenzano	1.424	44%
	Viggiù	758	81%
	Campi Bisenzio	436	6%
	Borgo San Lorenzo	380	8%
OVEST 50%	Scandicci	13.447	88%
	Campi Bisenzio	8.058	83%
	Imprato	6.046	94%
	Sesto Fiorentino	6.521	91%
	Limena e Signa	2.042	98%
SUD 16%	Imprato	5.865	87%
	San Cesario S.	1.888	75%
	Figline Valdarno	1.180	81%
	Grove in Chianti	858	89%
	Toscanelle Val.	742	83%
EST 19%	Bagnoli e Ripoli	7.214	83%
	Fiesole	3.070	85%
	Portofino	2.797	87%
	Grove in Chianti	1.512	82%
	Rignano S. I.	774	87%



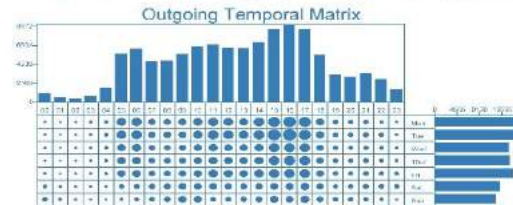
## Regular VS Occasional



## Outgoing Traffic (106.418 Trajectories)



	City	Traj	Perc
NORD 12%	Sesto Fiorentino	8.958	89%
	Calenzano	1.229	29%
	Viggiù	845	87%
	Campi Bisenzio	487	7%
	Borgo San Lorenzo	456	74%
OVEST 52%	Scandicci	13.473	88%
	Imprato	6.168	95%
	Campi Bisenzio	5.548	89%
	Sesto Fiorentino	5.521	90%
	Limena e Signa	2.022	98%
SUD 14%	Imprato	3.985	85%
	San Cesario S.	1.801	72%
	Figline Valdarno	1.128	77%
	Grove in Chianti	739	29%
	Bagnoli e Ripoli	7.211	94%
EST 20%	Fiesole	3.082	84%
	Portofino	3.006	88%
	Grove in Chianti	1.675	67%
	Rignano S. I.	918	95%



## Regular VS Occasional



Ma...

---



Quanto Big?

Tirare fuori le leggi del cosmo  
dal rumore di una TV?

Accumulare senza una  
domanda?

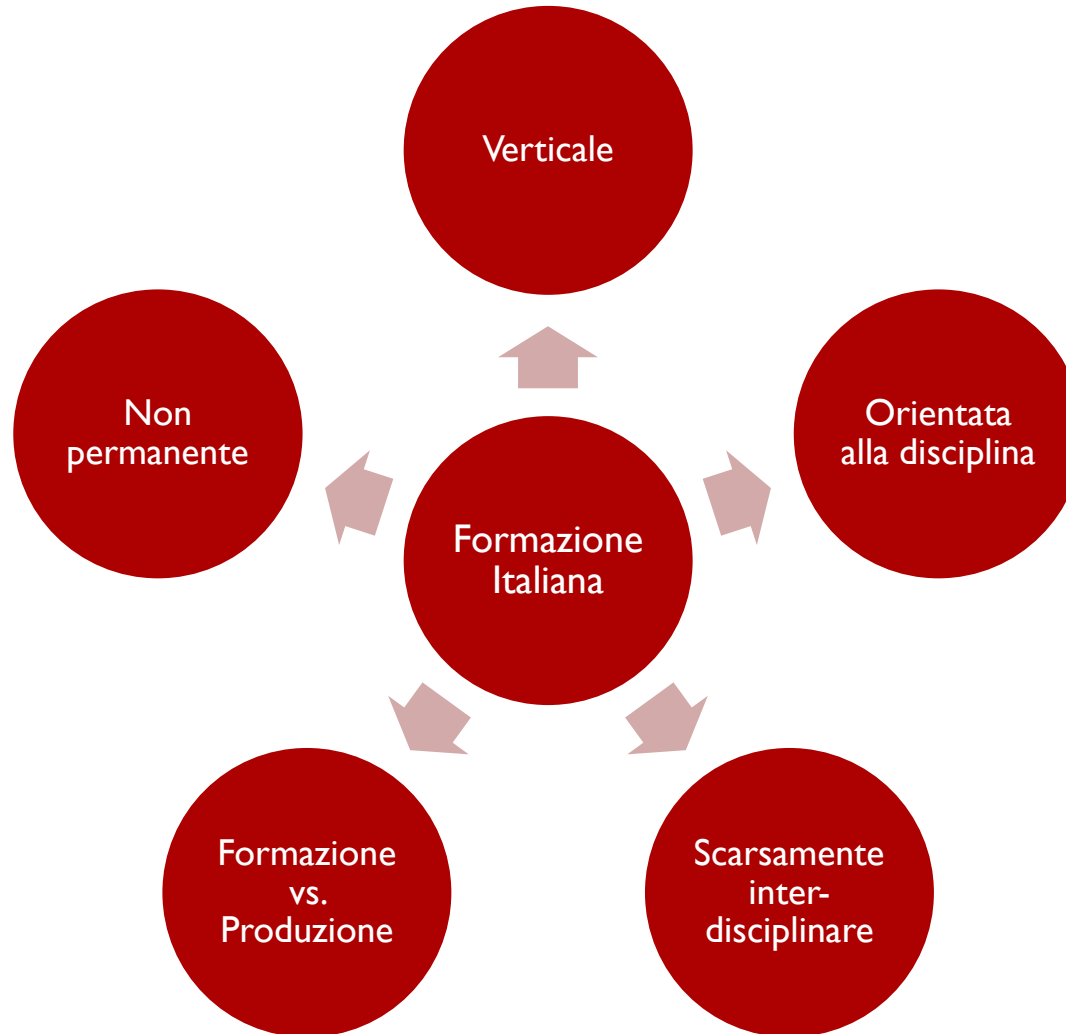
...aspettando IoT

# La formazione



# Le sfide nella formazione del data scientist

---



# The Goal

- ▶ Train "**data scientists**", a mix of professionals with multidisciplinary skills useful to obtain and process big data and extract knowledge to support
  - support decision-making
  - development of innovative services,
  - knowing also how to manage the ethical and legal implications deriving from the use of these services.

