



# Keep **Fit** (a **Bit**) in Kalamaki

First web based\* attempt to make Kalamaki a „Smart City“

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\* to be extended to an app-based version after fundings ;)

# The Story of Fred

- Fred lives in Dublin
- Dublin is a smart city \*
- Fred is a sports enthusiast
  - Observes his energy consumption/gain
- Fred is going on holidays to Kalamaki
- Of course Fred wants to stay fit
- But...

How to stay fit  
In Kalamaki?



# What is a smart city?



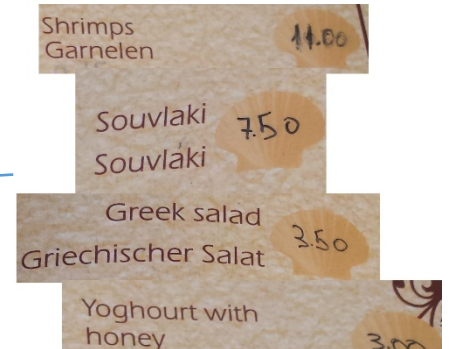


# Goal: „Personalized health planner“

Age, Height, Weight, Gender  
Position in Kalamaki



Personalized health planner



## Integrated view of:

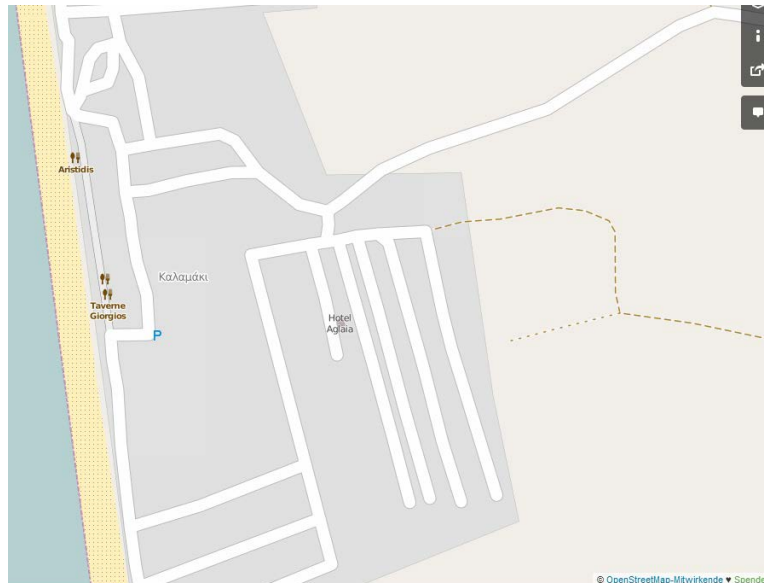
- Locations of Restaurants
- Dishes of restaurants
- Energy of dishes
- Price of dishes
- Walking distances between different places
- Overview of own energy balance

# What did we do?



- Data collection

- RDF data (Total steps per day - FitBit API)
- Non-digital data (restaurant menus)
- HTML data (calories of dishes)
- Geographic data (OSM)



Nutrition Facts	
Greek Moussaka	
Amount per 1 serving	
Calories: 267	
Total Fat	15.00 g
Saturated	n/a g
Polyunsaturated	n/a g
Monounsaturated	n/a g
Trans Fat	n/a g
Cholesterol	n/a mg
Sodium	n/a mg
Potassium	n/a mg
Carbohydrate	16.00 g
Dietary Fiber	n/a g
Sugars	n/a g
Starch	n/a g
Alcohol	n/a g
Protein	17.00 g
Water	n/a g



# What did we do?

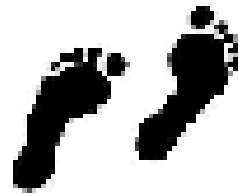
- Data integration
  - RDFisation of non-digital data and other data
  - Stored it in (local) triple store
  - SPARQL queries over multiple datasets
- Implementation of web-based prototype
  - Computations of calories
  - Integration with backend
  - Graphical user interface

Keep fit-a-bit in Kalamaki ® Health Planner Sync

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Moussaka (650 kcal) Greek Salad (250 kcal) Stifado (370 kcal) <input type="text" value="add a dish"/> +	Moussaka (650 kcal) Greek Salad (250 kcal) Stifado (370 kcal) <input type="text" value="add a dish"/> +	Moussaka (650 kcal) Greek Salad (250 kcal) Stifado (370 kcal) <input type="text" value="add a dish"/> +	Moussaka (650 kcal) Greek Salad (250 kcal) Stifado (370 kcal) <input type="text" value="add a dish"/> +	Moussaka (650 kcal) Greek Salad (250 kcal) Stifado (370 kcal) <input type="text" value="add a dish"/> +	Moussaka (250 kcal) Stifado (370 kcal) Yoghurt with honey (975 kcal) <input type="text" value="add a dish"/> +	<input type="text" value="add a dish"/> + Kcal gained: 0 Steps: 0 Kcal loss: 0
Kcal gained: 1270 Steps: 2156 Kcal loss: 1291	Kcal gained: 1270 Steps: 2156 Kcal loss: 1291	Kcal gained: 1270 Steps: 2156 Kcal loss: 1291	Kcal gained: 1270 Steps: 2156 Kcal loss: 1291	Kcal gained: 1270 Steps: 2156 Kcal loss: 1291	Kcal gained: 1795 Steps: 2159 Kcal loss: 1014	

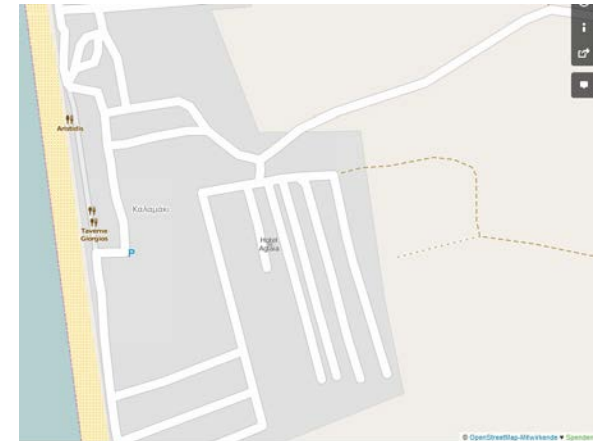
Demo

*HP* *anner*



# Future steps

- Publishing Kalamaki data on OSM (Restaurants, Prices, Calories, etc.)
- Generalization/integration of real smart city
- Social features
  - Share activities and consumption
  - Compare with other users
  - Exchange „lifestyle“
    - a) „I lost ...kg by doing ...“
    - b) „Wow, I live there too, I’ll do the same thing“
  - Including weather data
  - Including health data (illnesses, diseases, allergies)





The first team ever, enabling Kalamaki a „smart city“!



Thank you!