

An aerial photograph of a lush green agricultural landscape. The image shows a patchwork of terraced fields, some of which are filled with water, reflecting the sky. A central area is densely forested with various types of trees, including palm trees. The overall scene is vibrant and verdant, suggesting a healthy and productive agricultural environment.

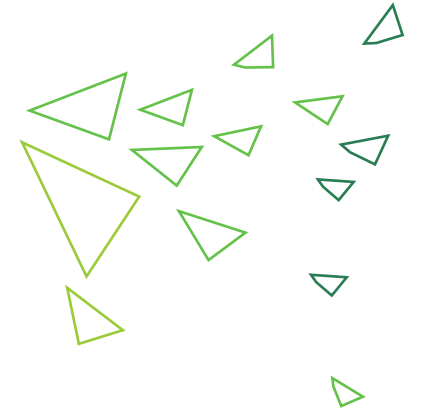
Vertical Farm: the best location in the city of Rome

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Introduction

Background



Recent years trends and market conjunctions are increasingly provoking technological advancements in the agriculture industry.

Growing population in urban areas and scarcity of free soil for crop farming together with the marginal cost advantage of robotics and automation which is now more affordable also for small enterprises, led to the development of new farming techniques such as vertical farming, rooftop farming and hydroponics

Quick facts: topic trend

Topics associated with Vertical farming have seen a relative general increase worldwide from 2006. The economic crisis of 2007-2009 and the consequent high unemployment fostered new experimental business models in traditional sectors like agriculture. The states which saw the biggest development are small, highly urbanized with small land areas for agriculture such as: Singapore, Denmark, Netherlands, Switzerland...

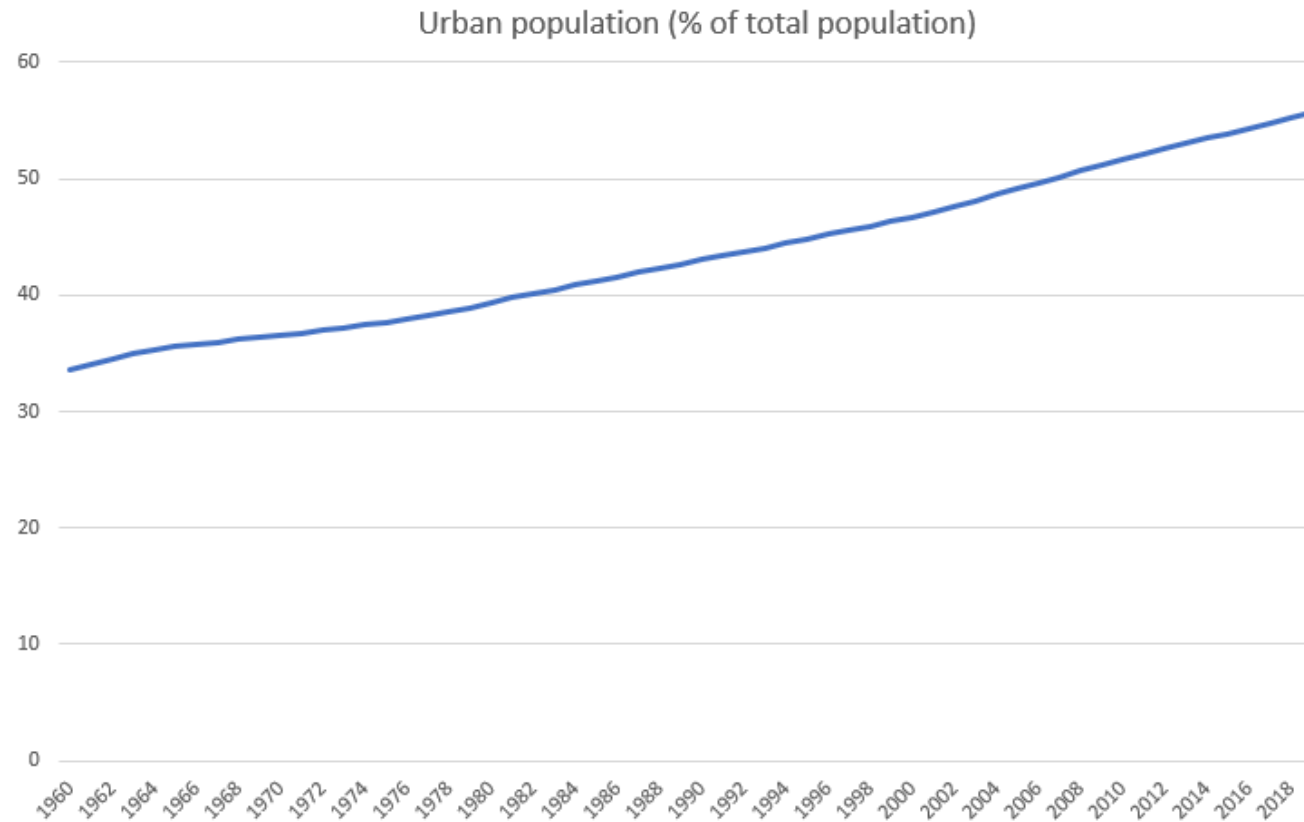
1- Topic trends. Growing trend of "Vertical Farming" topic worldwide based on Google trend source



Quick facts: growing population

Given the upward urbanization rate worldwide, there will always be an increase demand for food coming from the major cities which could find alternative ways to supply fresh products and increase the standard.

2- Urbanization rate. Growing number of People living in urban areas



Quick facts: unutilized space

Several unutilized public areas in a city like Rome, could find alternative destination other than being left abandoned, fostering the culture of recycling, and urban requalification of damaged sites.

3- Space availability. According to the website <https://romabbandonata.org/> , Rome has several abandoned public facilities (proprietà pubblica) that can be suitable for requalification or different reutilization



The Solution: Vertical Farm



Building sites recovery

Abandoned building can
be restored and applied
for better usage



Higher employment

New-born businesses can
absorb new workforce in
places with high
unemployment



Healthy Food

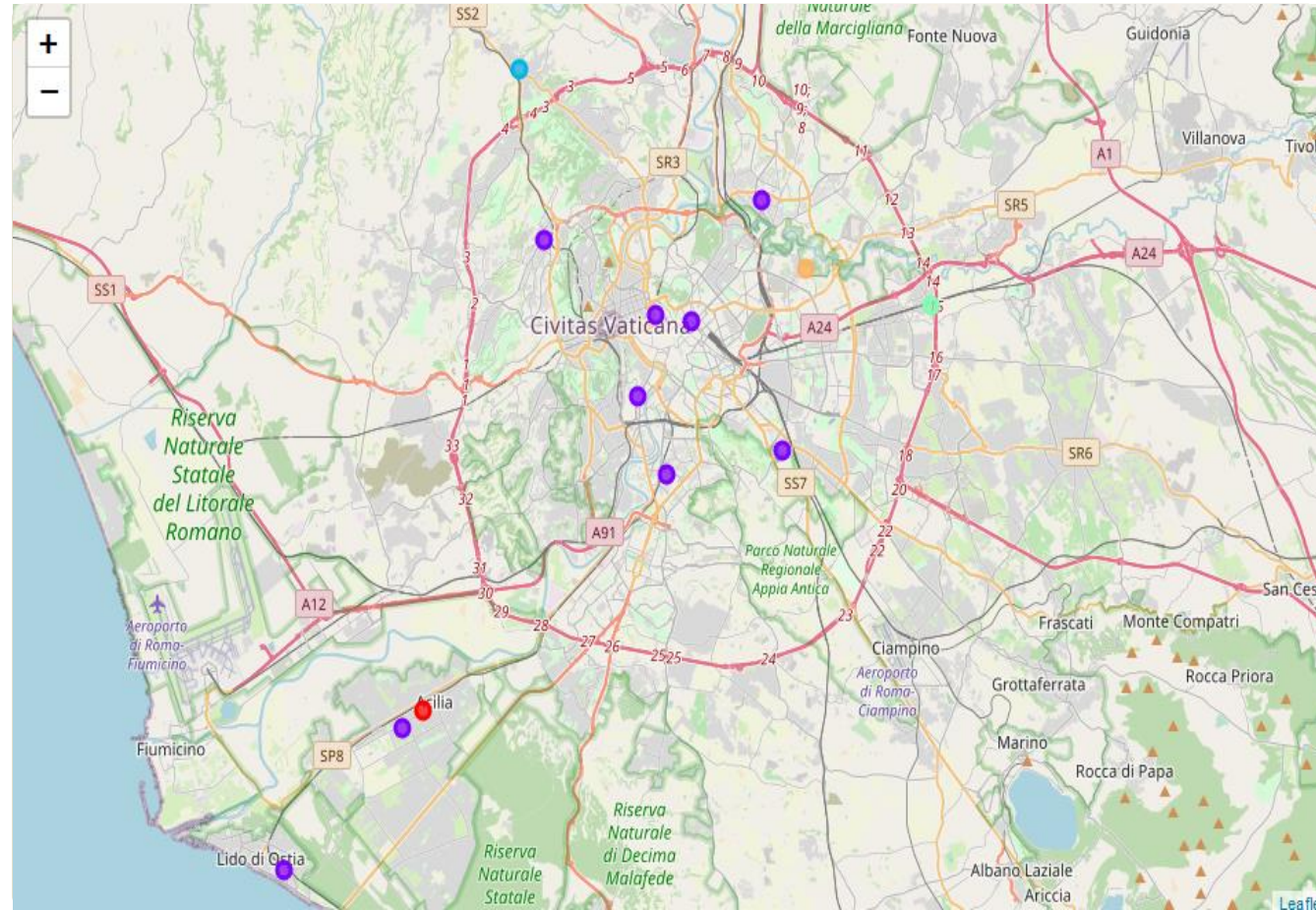
Km 0 pest free organic
vegetables



The locations in Rome

13 public areas were identified and clustered based on the venues categories

- Rimessa Atac San Paolo
- Ex Stazione Trastevere
- Ufficio Geologico
- Ex edificio scolastico I.T. Hertz
- Ex edificio scolastico I.C La Giustiniana
- Ex edificio scolastico Leonori
- Edificio dismesso Verne
- Edificio demolito Montebruno
- Ex edificio scolastico Vertunni
- Ex edificio scolastico Villari
- Ex edificio scolastico Ripetta
- Scuola Parini
- Ex impianto Acea Oletta



The venues

Clusters representatives of food businesses were ranked based on the most common venue frequencies in the top ten positions

NAME	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Rimessa Atac San Paolo	1	Ice Cream Shop	Café	Pub	Italian Restaurant	Clothing Store	Bistro	Supermarket	Bakery	Greek Restaurant	Chinese Restaurant
Ex Stazione Trastevere	1	Italian Restaurant	Café	Pub	Pizza Place	Electronics Store	Hostel	Buffet	Chinese Restaurant	Gym	Park
Ufficio Geologico	1	Hotel	Ice Cream Shop	Italian Restaurant	Hostel	History Museum	Plaza	American Restaurant	Pizza Place	Art Museum	Fountain
Ex edificio scolastico I.T. Hertz	1	Italian Restaurant	Historic Site	Restaurant	Metro Station	Falafel Restaurant	Middle Eastern Restaurant	Motorcycle Shop	Sporting Goods Shop	Breakfast Spot	Kebab Restaurant
Ex edificio scolastico Leonori	1	Bakery	Pizza Place	Historic Site	Italian Restaurant	Pub	Wine Shop	Cosmetics Shop	Church	Clothing Store	Cocktail Bar
Edificio demolito Montebruno	1	Café	Clothing Store	Pizza Place	Pub	Ice Cream Shop	Wine Shop	Church	Cocktail Bar	Cosmetics Shop	Cupcake Shop
Ex edificio scolastico Ripetta	1	Italian Restaurant	Hotel	Ice Cream Shop	Trattoria/Osteria	Boutique	Pizza Place	Japanese Restaurant	Mediterranean Restaurant	Monument / Landmark	Bridge
Scuola Parini	1	Chinese Restaurant	Wine Shop	Italian Restaurant	Japanese Restaurant	Plaza	Bistro	Fried Chicken Joint	Metro Station	Noodle House	Pizza Place
Ex impianto Acea Oletta	1	Pub	Beach	Ice Cream Shop	Hotel	Seafood Restaurant	Cocktail Bar	Plaza	Restaurant	Metro Station	Café

Conclusions

Rimessa Atac San Paolo proved to be the most suitable candidate to start a vertical farm in terms of number of collateral businesses in the food industry located in the surroundings of the site such as: Restaurants, Supermarkets, Pubs etc...



An aerial photograph of a lush green landscape, likely a rice paddy field, with a dark rectangular overlay on the left side. The overlay contains the text "Thank you" in white. A white line points from the text to a small, dark, rectangular object in the field. The landscape is divided into several green rectangular plots by thin lines, and a small body of water is visible on the right side. A dense cluster of trees is at the bottom.

Thank you