



**Politecnico
di Torino**



e l i i s
European Laboratory for Learning and Intelligent Systems

Applied Data Science Project

L6 - SGD's and data science project examples

Giuseppe Rizzo
Turin, October 4, 2022

Impact and Values



Develop a project that generates value considering the above 3 dimensions



United Nations Sustainable Development Goals



SDG 1: No Poverty

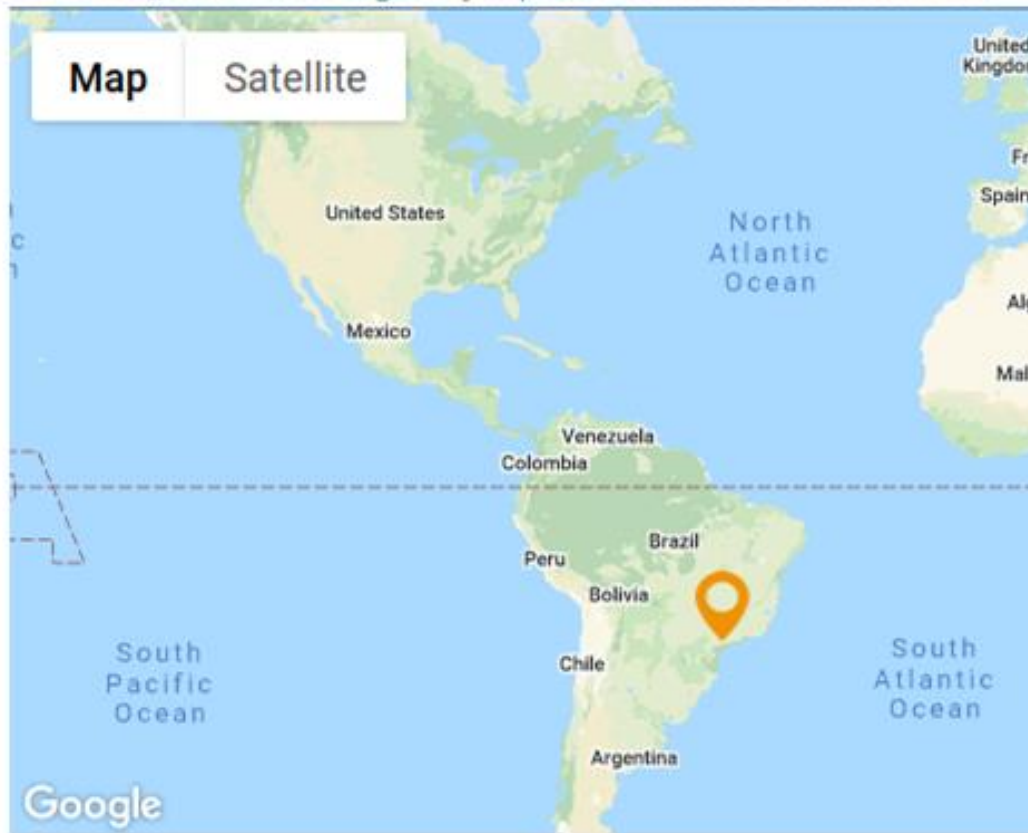


Spending patterns on cell phone services can provide proxy indicators of income levels

SDG 2: Zero Hunger

DOMESTIC PRICE WARNINGS

Countries where prices of one or more basic food commodity are at abnormal high levels in main markets (identified by the [Indicator of Price Anomalies](#)), which could negatively impact access to food at national level

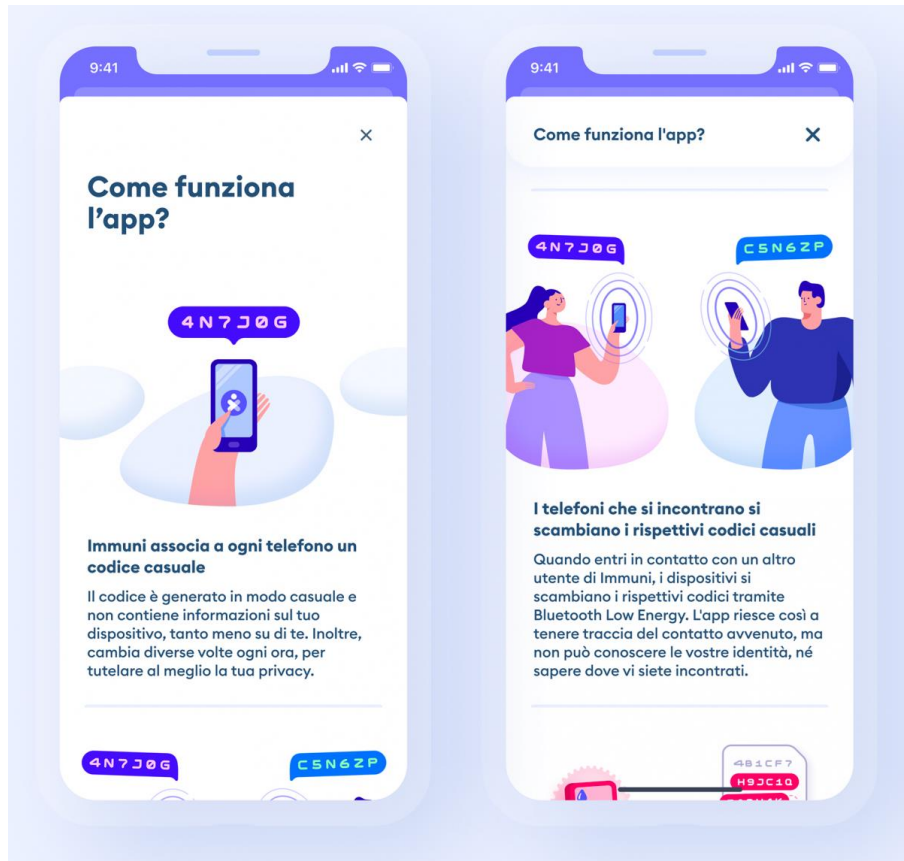


Crowdsourcing or tracking of food prices listed online can help monitor food security in near real-time



Price warning level: High Moderate [Based on GIEWS analysis]

SDG 3: Good Health and Well-Being



Mapping the movement of cell phone users can help predict the spread of infectious diseases



SDG 4: Quality Education



Citizen reporting can reveal reasons for student drop-out rates



SDG 5: Gender Equality



Analysis of financial transactions can reveal the spending patterns and different impacts of economic shocks on men and women



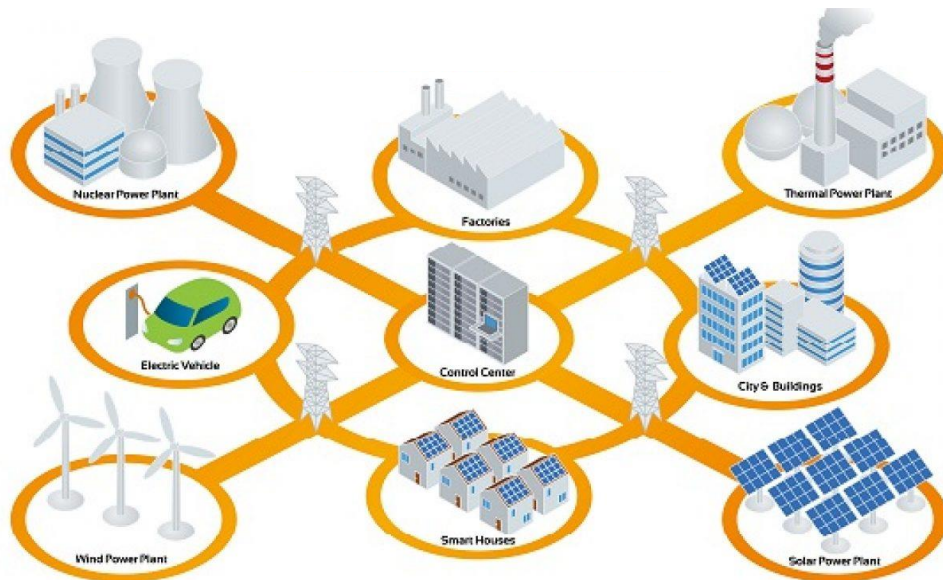
SDG 6: Clean Water and Sanitation



Sensors connected to water pumps can track access to clean water



SDG 7: Affordable and Clean Energy




Smart metering allows utility companies to increase or restrict the flow of electricity, gas or water to reduce waste and ensure adequate supply at peak periods



SDG 8: Decent Work and Economic Growth



International inbound and outbound postal traffic, letter mail and parcel services

 EU institutions
data

Publisher:
Directorate-General
for Internal Market,
Industry,
Entrepreneurship
and SMEs

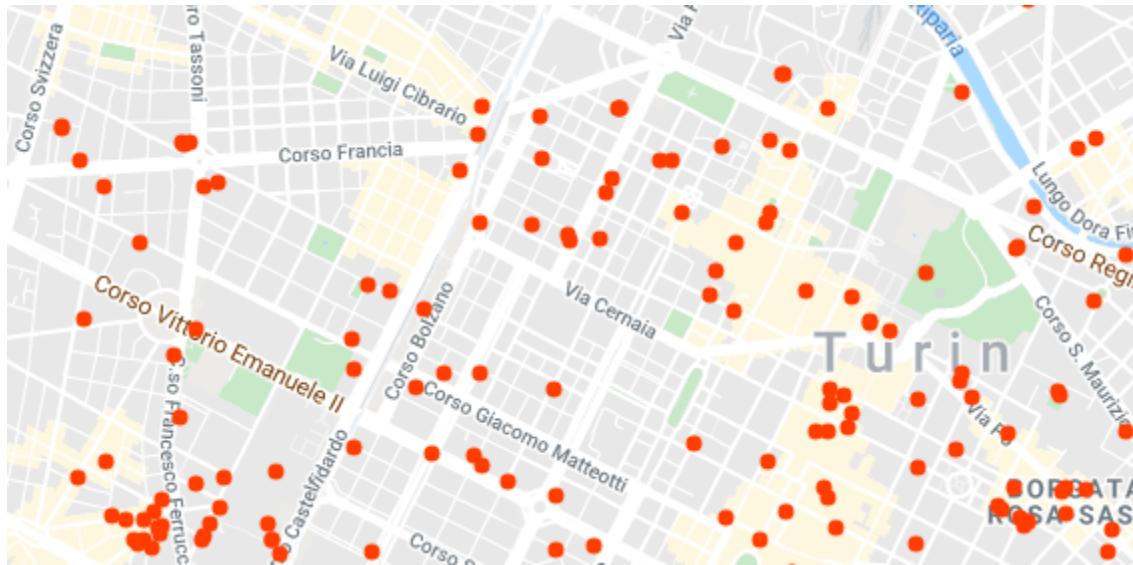
Updated: 04.03.2021

Patterns in global postal traffic can provide indicators such as economic growth, remittances, trade and GDP

International postal traffic is the sum of intra-EU traffic, and traffic with third countries. Inbound refers to incoming traffic, and outbound refers to outgoing traffic from the country of reference. Domestic postal traffic is not included. For more information on the definitions of letter mail and parcel services see [here](#)

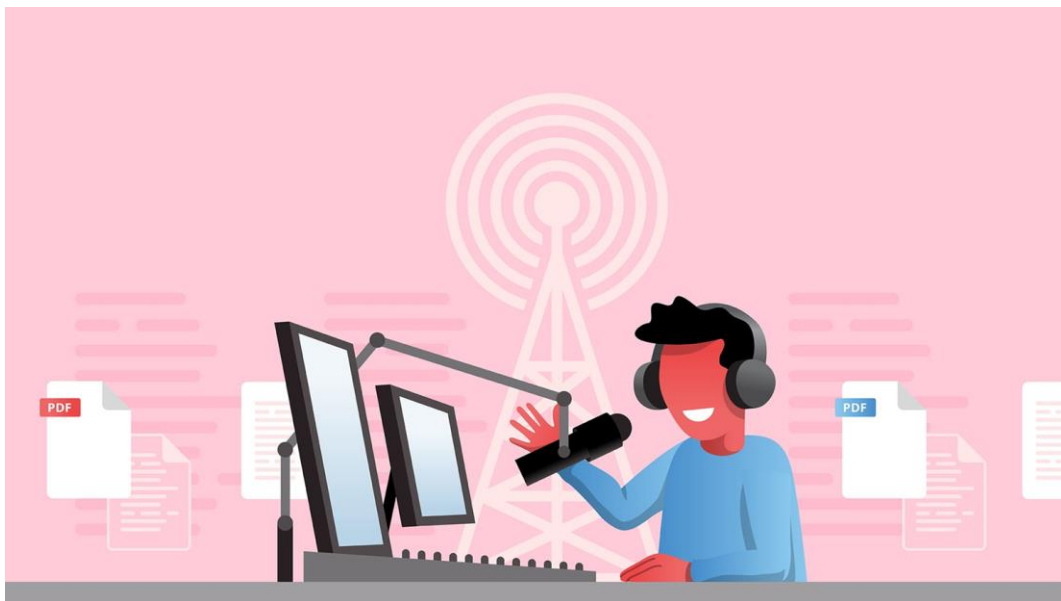


SDG 9: Industry, Innovation and Infrastructure



Data from GPS devices can be used for traffic control and to improve public transport

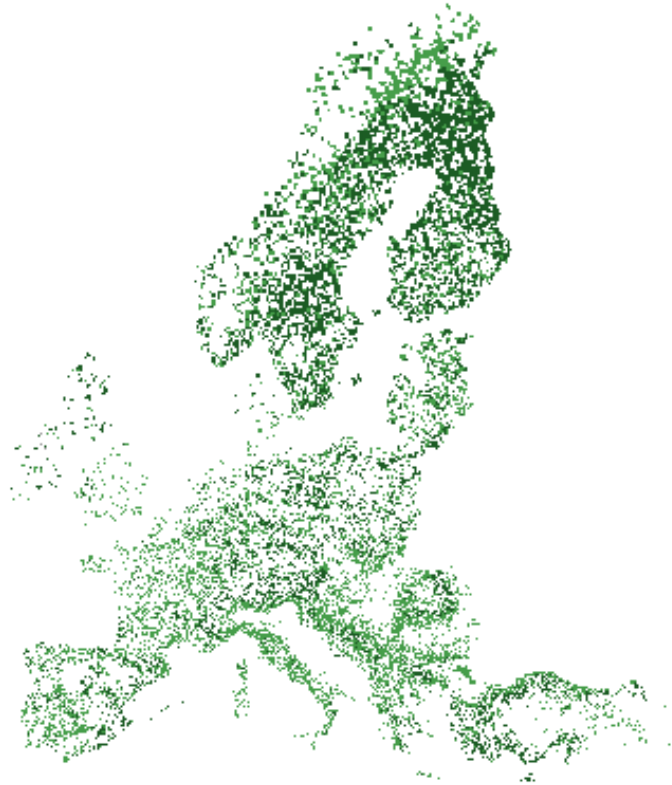
SDG 10: Reduced Inequality



Speech-to-text analytics on local radio content can reveal discrimination concerns and support policy response



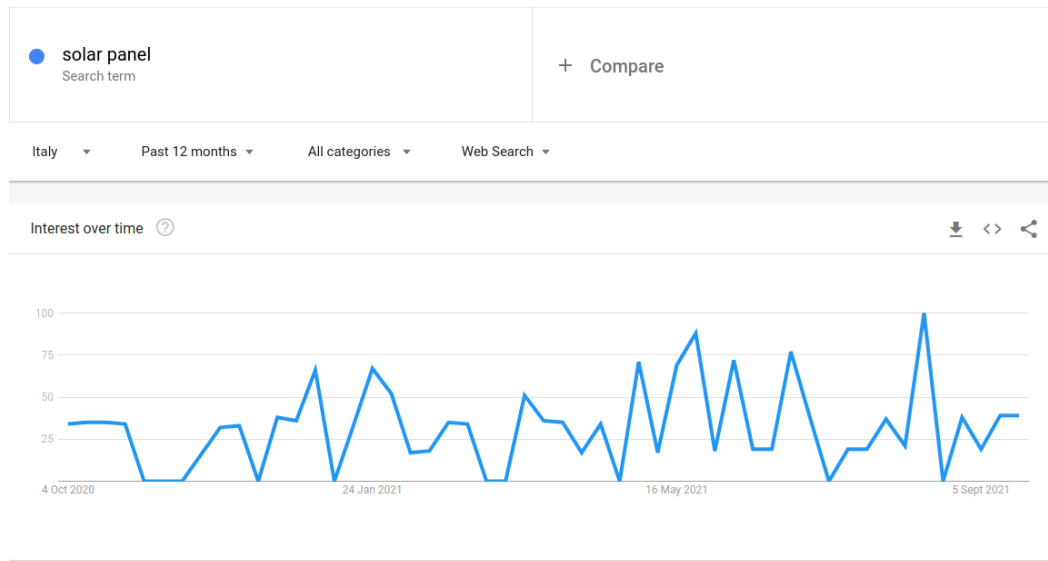
SDG 11: Sustainable Cities and Communities



Satellite remote sensing can track encroachment on public land or spaces such as parks and forests

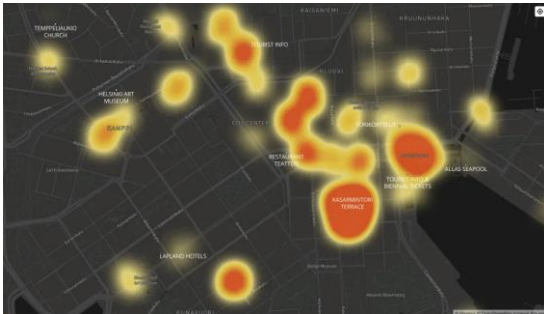


SDG 12: Responsible Consumption and Production



Online search patterns or e-commerce transactions can reveal the pace of transition to energy efficient products

SDG 13: Climate Action



Combining satellite imagery, crowd-sourced witness accounts and open data can help track deforestation



SDG 14: Life Below Water



Maritime vessel tracking data can reveal illegal, unregulated and unreported fishing activities



SDG 15: Life on Land



Social media monitoring can support disaster management with real-time information on victim location, effects and strength of forest fires or haze



SDG 16: Peace, Justice and Strong Institutions



Sentiment analysis of social media can reveal public opinion on effective governance, public service delivery or human rights



SDG 17: Partnerships for the Goals



Partnerships to enable the combining of statistics, mobile and internet data can provide a better and real-time understanding of today's hyper-connected world





Enablers for sustainability

The examples we listed in this presentation are taken from <https://www.un.org/en/global-issues/big-data-for-sustainable-development>

Think of any further project that concerns an application of data science as falling into the scope one of these 17 goals

It is a valid exercise to understand the value of the project and its need (if it can be linked to one of those goals, then you have one **greenlight**)





Further references

Find out more about <https://www.globalgoals.org>

Be inspired by the targets that each goal brings, for instance <https://www.globalgoals.org/1-no-poverty> and many others





Thank you for your attention.

Questions?



CONTACTS

Giuseppe Rizzo

Program Manager (LINKS Foundation) and
Adjunct Professor (Politecnico di Torino)

giuseppe.rizzo@polito.it



FONDAZIONE LINKS
Via Pier Carlo Boggio 61 | 10138 Torino
P. +39 011 22 76 150
LINKSFUNDATION.COM