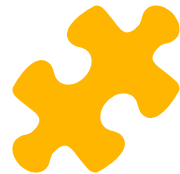




EcoSpace

Challenge: BalticSatApps (BSA01)
ActInSpace Kraków 2018



Who we are?



Maciej Mendrela

Frontend Dev & DevOps.
Vue.js and AWS
enthusiast. EV freak.
#100%arabica



Daniel Skoczny

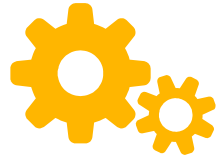
DevOps engaged in
developing highly
available and scalable
system in cloud. AWS
certified Solution Architect
& Developer. Java geek.



Dawid Skoczny

Our Data Science master.
Strong math & physic
background. AGH student.

How it works?



You tell us

- Address
- Payment
- Electricity provider



Calculate
your solar panels cost

1 HOUSEHOLD DETAILS

Address ?



Avg. bill \$?

Provider ?

Bill ?


2 PROPERTY DETAILS

Roof pitch

0° 45° **25°** ?

Roof orientation



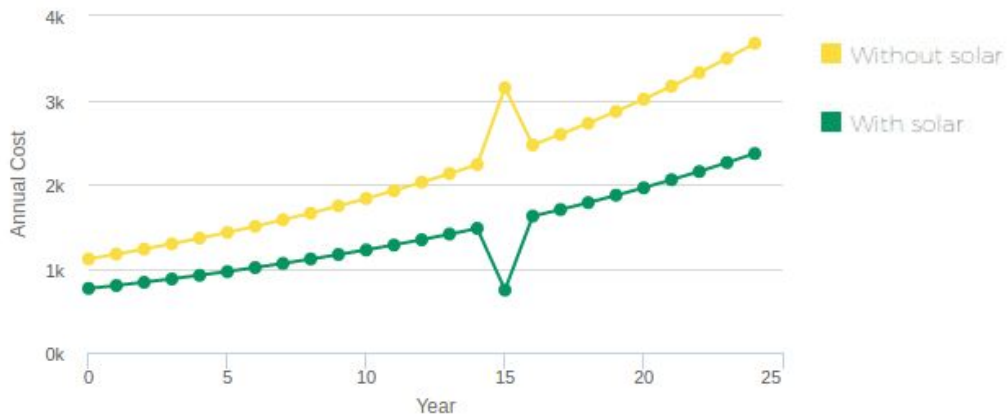
N N **ENE** ?



We give You

- **Savings** report
- **Investment return** time
- Solar system **cost**

ELECTRICITY BILL COMPARISON





Why we **believe** in our idea?

- Big opportunities in the renewable energy sector
- Need of precise data on investment
- Growing interest of green energy

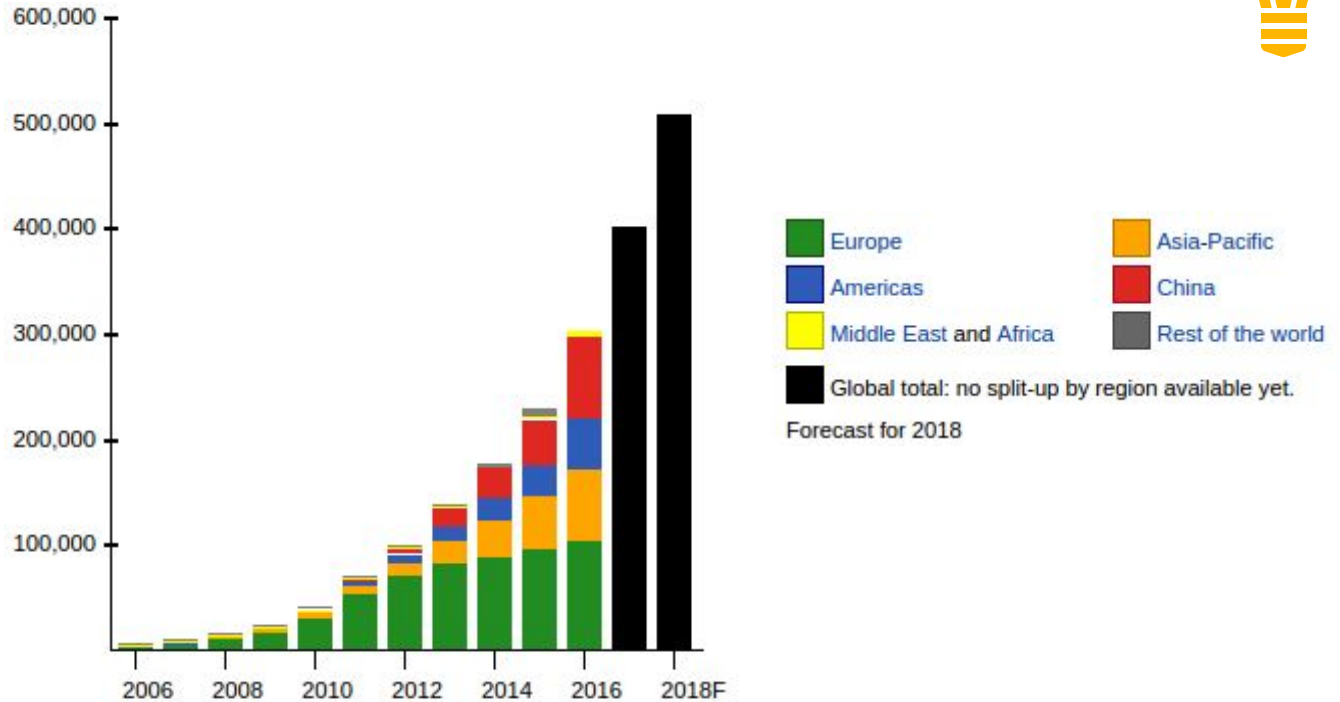


550 mln zł

Polish market PV volume in 2016
(Raport *Rynek fotowoltaiki w Polsce 2017*)



Cumulative capacity
in megawatts



Worldwide growth of photovoltaics

https://en.wikipedia.org/wiki/Growth_of_photovoltaics



ENVIRONMENT

Saudi Arabia Is Investing \$200 Billion in Solar Energy



By **Joe McCarthy**

MARCH 28, 2018

The country wants to get 10% of its energy from renewables by 2023.

There's a lot of oil in Saudi Arabia, but there's also a lot of sunshine, and as the former loses viability the country is looking to replace pipelines with solar panels.

During his ongoing tour of the US, Saudi Crown Prince Mohammed bin

<https://www.globalcitizen.org/en/content/saudi-arabia-solar-energy-200-billion-investment/>





Who is our **client**?

Producers and companies involved in the assembly of photovoltaic panels that can reliably present predictions based on historical data.

340 companies in PL
(panoramafirm.pl, 2018)

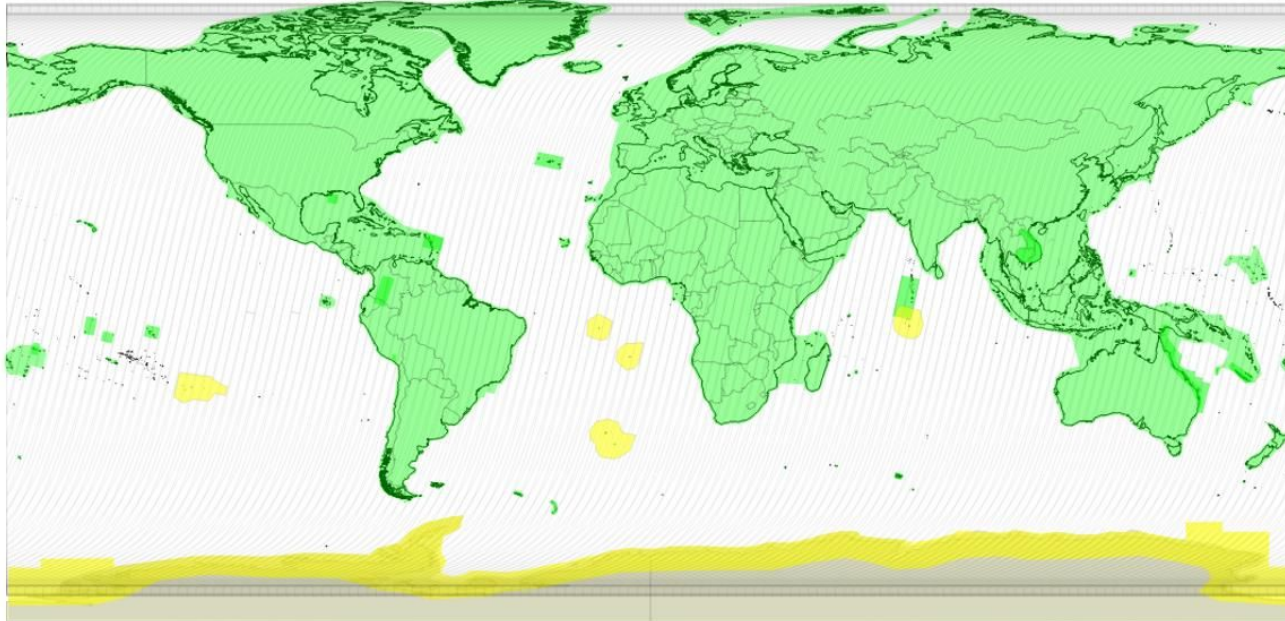
Individual recipients interested in the investment, wanting to find confirmation in the profitability of the investment.

16k micro-installation in PL
(Raport *Rynek fotowoltaiki w Polsce 2017*)

Sentinel-2 Constellation Observation Scenario: Revisit Frequency



Validity start: Mar 2018



5 days
10 days



What we do **better?**

- Reports based on **satellite** and weather data.
- Real **profits** statement based on local history
- The subscription model **available to everyone.**



How we use **satellite**?

- Sentinel 2 provides high resolution atmospheric data used to spot and identify clouds
- Copernicus Open Access Hub provides API for downloading data
- Archival data from other satellites



Further improvements

Better prediction

New
satellites

Land facilities

Additional data
provided by satellites

Coverage by
fixed objects



Potential threats

- Satellites lifetime.
- Tight coupled partnership.
- Low local interest due to bad weather conditions.
- Inconsistent calculation across data sources.



Thanks!

Any questions?

Contact

Team: KRACKERS
skocznydaniel@gmail.com