



IOM Solutions

Intelligent Operation & Maintenance
Solutions

PROBLEM STATEMENT

- O&M costs is important for investors and solar plants operators
- Without inspection and monitoring, solar power plants efficiency drops significantly, and their components degrade rapidly
- Monitor all the solar plant indicators is costly and time consuming
- Suboptimal interventions and cleaning strategies interrupt the production and increase the O&M costs

Broken glass



Module discoloration



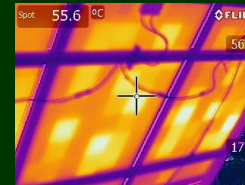
Misalignment of mirrors



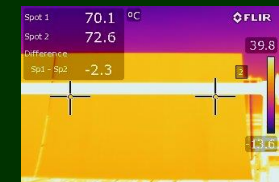
Delamination



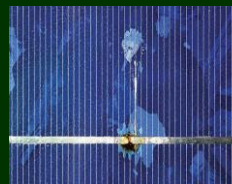
Hot spot



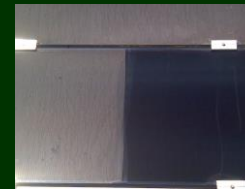
Thermal losses



Burn marks



PV Soiling



CSP Soiling



OUR SOLUTIONS

Instead of hundreds of different types of conventional sensors, drones can get the job done by ensuring :



- High accuracy;
- Less risk to human safety;
- Entire inspection of difficult areas;
- Fast inspection and monitoring of the overall indicators;
- Reduce downtime and maintenance costs.



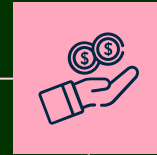
First tests and validation by drone on the GEP site



Customer benefits

SAVE TIME

Fast & Total
inspection using
UAV



SAVE MONEY

One technology
instead of hundred

MAKE MONEY

Maintain maximum
performance



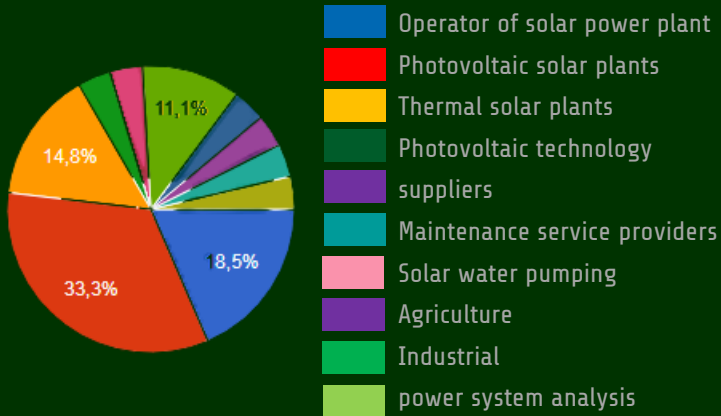
ENERGY & VISUALIZATION

Smart Data
Visualization and
making-decision

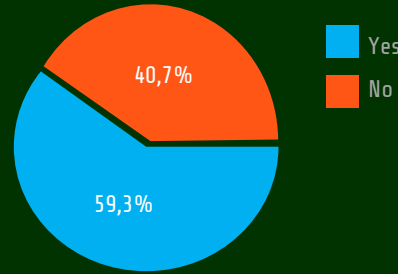
Market segmentation

50 entities surveyed

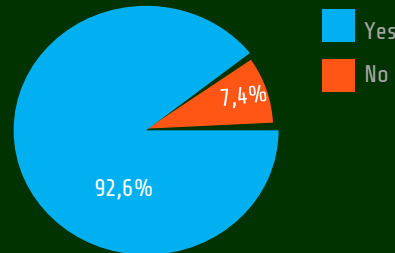
What is your sector of activity?



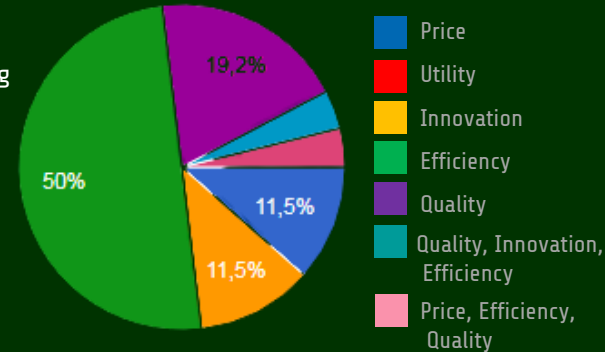
Do you have a maintenance system for your solar power plants (photovoltaic or thermal) ?



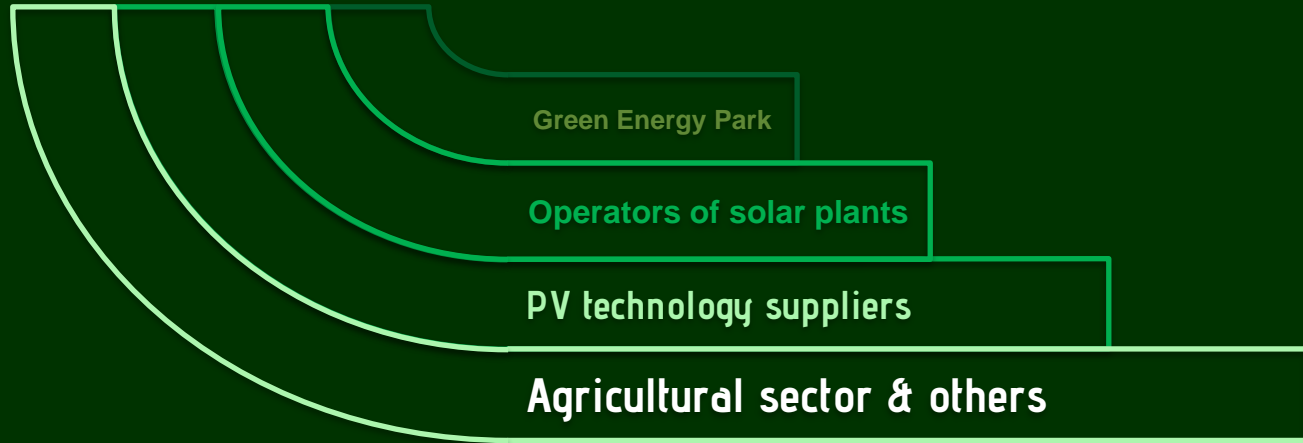
Do you plan to streamline your services by integrating an innovative and efficient maintenance service for your solar plants (photovoltaic or thermal)?



What do you think should be the most attractive aspects of the new maintenance service?



MARKET PLAN IN MOROCCO



Market 1



Market 2

Market 3

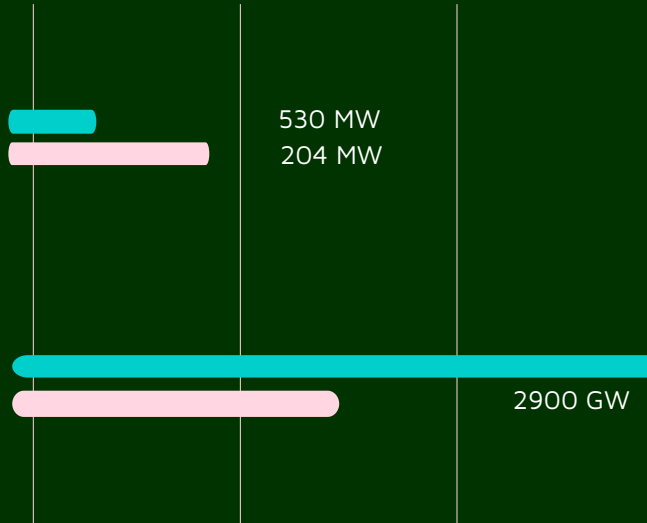
Market 4

MARKET SIZE

Operation and maintenance costs

-  PV 1000-2500 \$ for each 1 MW/year
-  CSP 2500-5000 \$ for each 1 MW/year

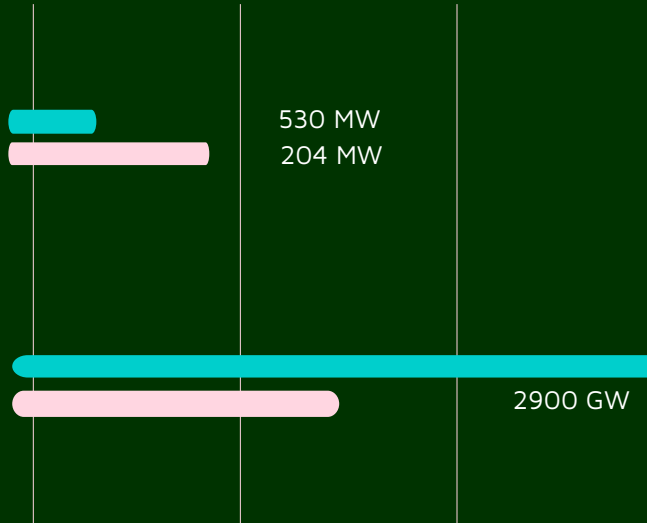
Morocco
Total capacity installed



\$1.5M

\$3.1M

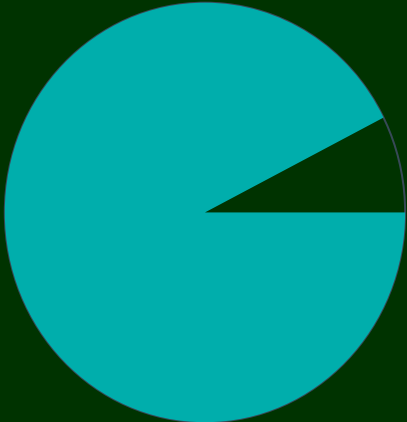
Africa
Total capacity installed



\$13.4M

\$29.8M

UNIQUE ADVANTAGE



Farasha Systems

Not focused on the energy sector



Only one competitor in Morocco !



COMPETITIVE ADVANTAGE

Why are we innovative ?



Innovation

Scientific researchers
in the solar energy
sector

Experience

Extensive experience
with monitoring
systems, in particular in
the GEP platform

Data Analytics

Using Machine
Learning Models

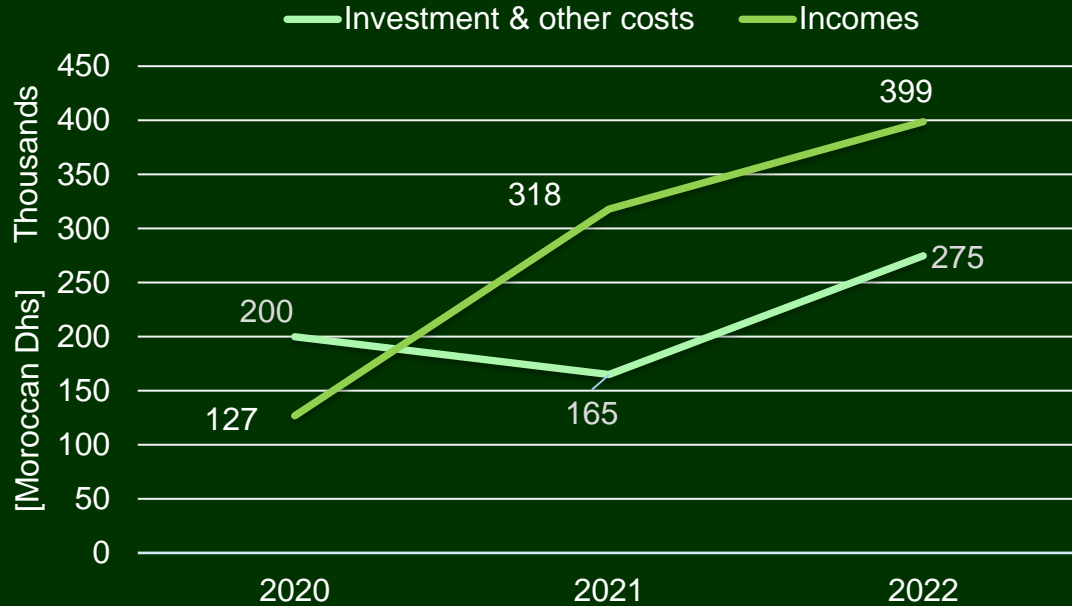
Unique Experience

Suggestion accurate
products and services



There is currently **no company** in
Morocco that offers all the features and
solutions proposed by IOM Solutions

Marketing Plan & Revenue Streams



OUR TEAM



Massaab EL YDRISSI

PhD Candidate in optical modeling and Artificial Intelligence.
Engineer in embedded systems



Halima OUATAB

Student In industrial management engineering



Alae AZOUZOUTE

PhD Candidate in solar power plants degradation and modeling.
Mechanical and energy Engineer

THANKS



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