

Sustainable Energy Solutions

AN ALTERNATIVE APPROACH



SOLUTIONS PROVIDER

○ KHARTOUM ○ ROME ○ HOUSTON ○ LONDON

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About MEFIT



- ❑ MEFIT is involved in a wide range of activities; from regional and urban planning, and complete design of a commercial or industrial center or a new city to energy projects.
- ❑ MEFIT's experience and expertise in consulting, engineering and project/program management is capable to construct an original overall approach to projects development.
- ❑ MEFIT wide network of Specialists provides to Government agencies or private developers, the expertise required to carry out Analysis, Feasibility Studies, Planning, Budgeting, Engineering and Designing, Tendering and Program/Project management.
- ❑ There is, an outstanding difference between the traditional consultancy approach and the philosophy adopted by MEFIT. The difference is immediately identifiable by the great importance MEFIT attaches to the local cultural aspects of the work at hand.
- ❑ Due to its modern organisation, MEFIT can provide answers to the most complex demands to the satisfaction of clients. The many clients are testimony to the magnitude and quality of MEFIT work.

MEFIT is implementation - from the first idea, possibly a simple line or colour hypothesis, to the completion of the smallest sophisticated detail, fit-for-purpose solutions produce an entire package of comprehensive design and implementation.

MEFIT is dynamic - it aims at the development of the potential creativity, energy and enthusiasm of a youthful staff, supported by experienced and skilful managers who represent the driving force of the company.

MEFIT is agile - know-how and organization bring the most compatible partnerships for any requirement. These qualities insure the commitment and the fulfillment of the project's objective.



Solar Power

- Solar power represents a cost effective, simple to install and easy to maintain power solution for rural applications.
- There are several options: photovoltaic, concentrated, storage, tracking, etc.
- MEFIT provides solar power solutions for addressing power requirements in rural and remote areas addressing agricultural, health care and housing needs.



Photovoltaic Plant

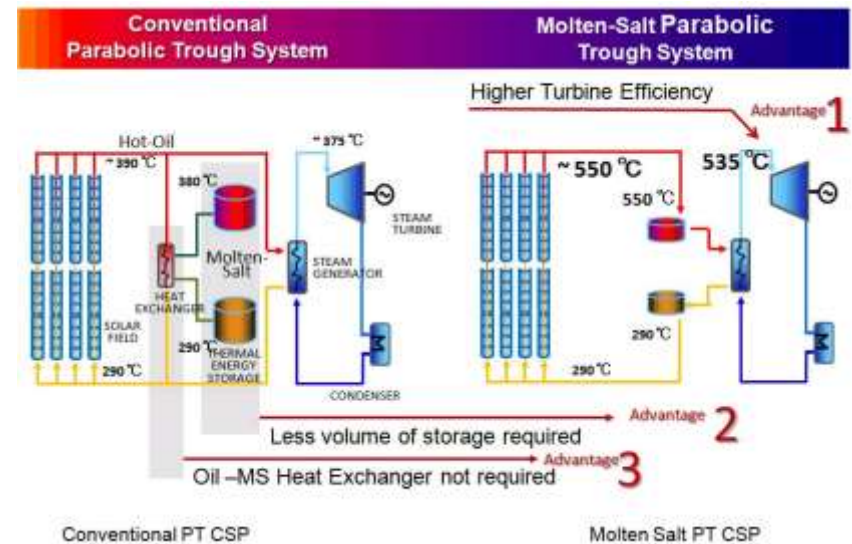


- ✓ Cost Effective
- ✓ Simple installation
- ✓ Automated operation
- ✓ Distributed Generation
- ✓ Modular
- ✓ Sun tracking
- ✓ Hybrid solutions
- ✓ Remote Monitoring
- ✓ Storage options



Concentrated Solar Plant

- Optimized solar panel configuration
- Reliable Steam power generation
- With or Without storage
- Optimize Heating/storage medium
- Automated Operation
 - ✓ Modular
 - ✓ Sun tracking
 - ✓ Hybrid solutions
 - ✓ Remote Monitoring

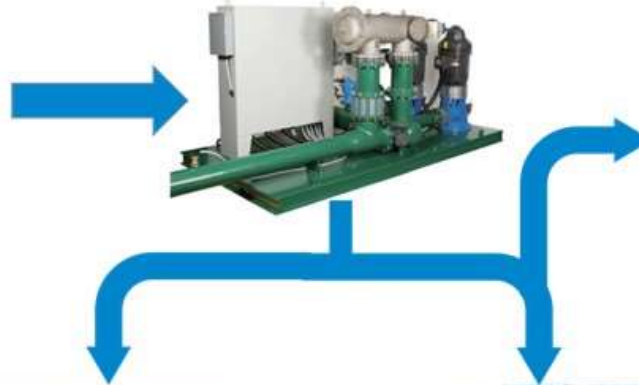


Irrigation Systems



Renewable Energy
Generation

Electric Irrigation Pump



Irrigation System



Water Well or River/canal Water
Intake
Submersible pumps

P r o v e n R e l i a b l e E c o n o m i c

Solar Car Park

- A Solar Carpark consists of a steel frame with photovoltaic solar panels for a roof.
- Solar Carparks provide many advantages over conventionally roof mounted solar panels such as:
 - Producing power at zero variable cost
 - Monthly utility costs are used to payback carpark
 - Reduce utility costs and carbon footprint
 - Improve commitment to the environment
 - Provide shade from intense solar radiation





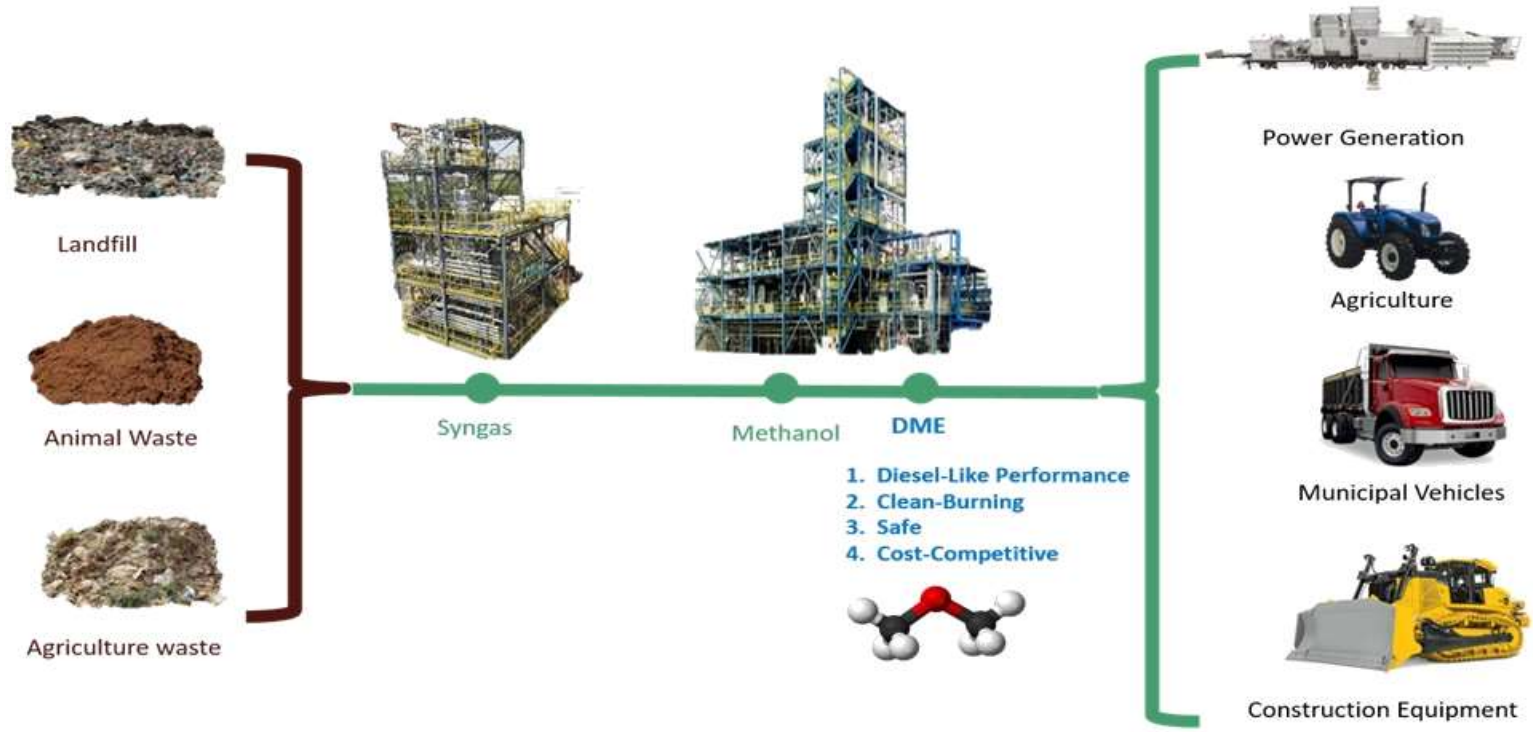
Bio - Fuels

- Agricultural areas provide abundant raw materials that can be converted economically in bio-fuel.
- Waste from farming or animal rearing are ideal material for bio-fuels.
- MEFIT can identify solutions, new and/or used equipment and project manage the whole development.



Methanol / DME

- DME is a clean-burning, non-toxic, high cetane value (55-60) and quiet combustion, inexpensive diesel alternative fueling system
- DME can be stored as a liquid under moderate pressure; simple and inexpensive fueling and infrastructure
- Methanol can be used with minor adjustments as an engine fuel or in methanol fuel cells



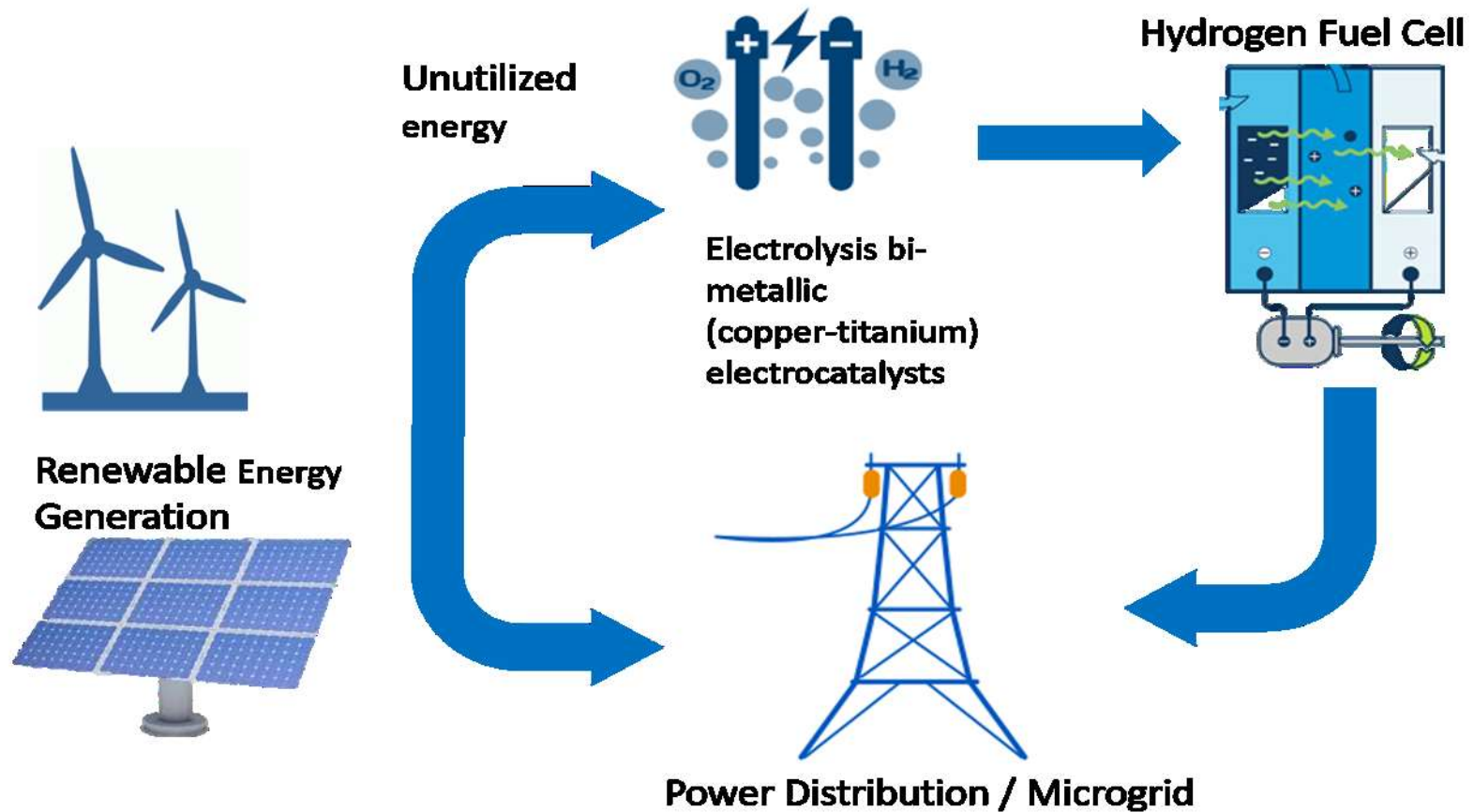


Fuel Cells

- Fuel Cells are a proven method to provide energy.
- Fuel cells can be used to charge batteries or feed local grids.
- Most common fuel cells are hydrogen but methanol fuel cells are a valid alternative.
- MEFIT can develop systems that combine solar power and fuel cells for an effective and economic energy solution.



Solar Fuel Cell Solution



Optimum Efficiency & Increased Supply Reliability

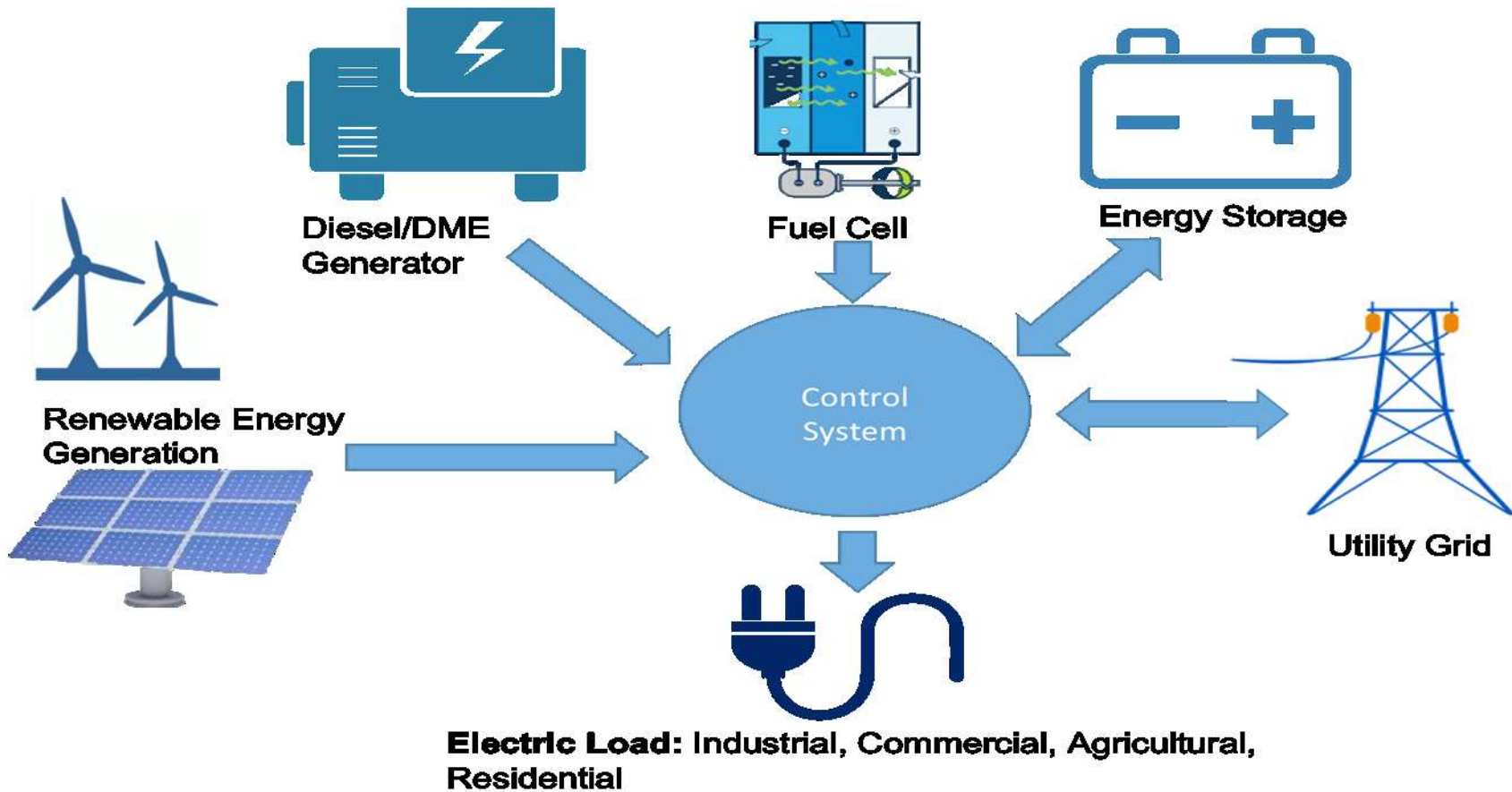


Microgrids

- Hybrid systems combining solar and other power generation methods in a microgrid can further enhance flexibility and range of operations
- A microgrid is a small-scale power grid that can operate independently or in conjunction with the area's main electrical grid.
- MEFIT brings together different energy sources and combines them with load management systems to provide flexibility and reliability.

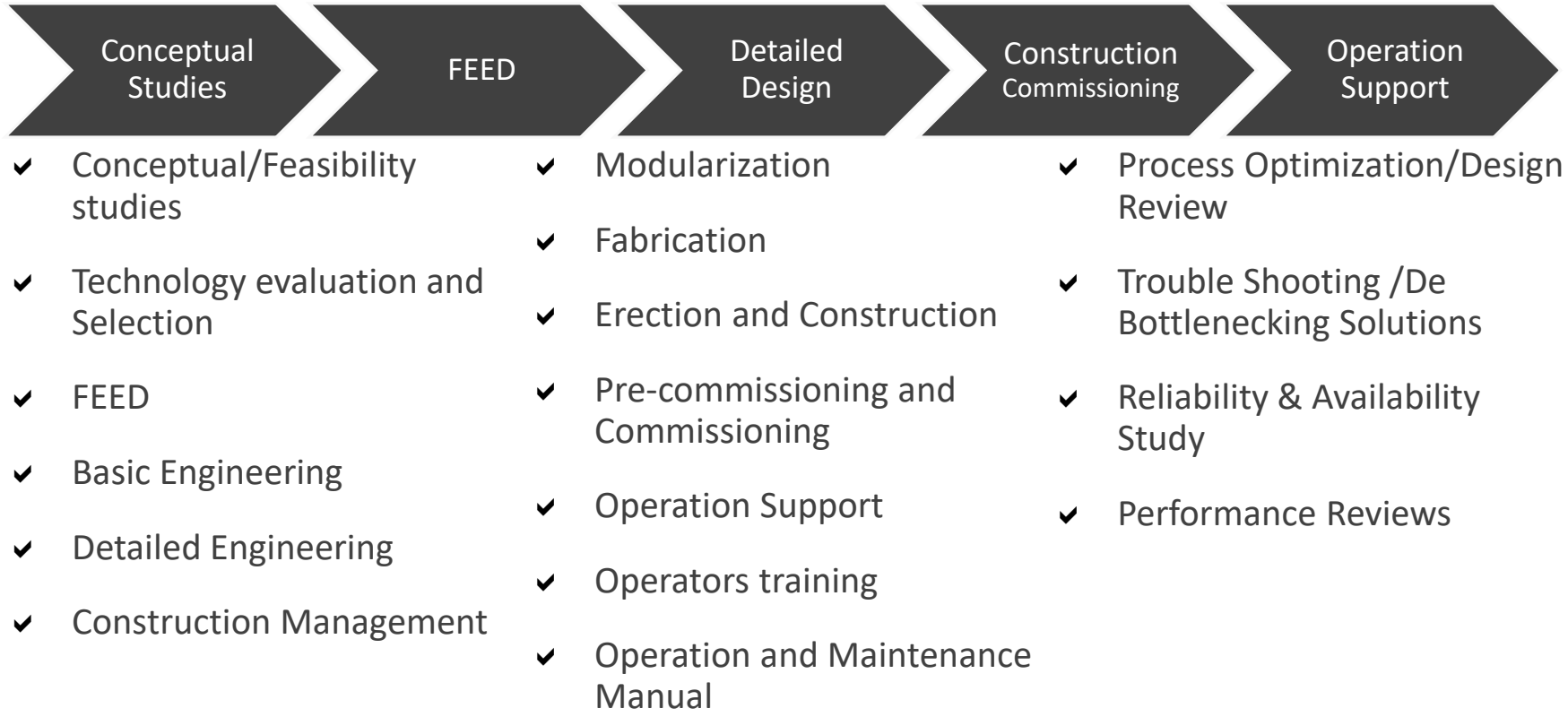
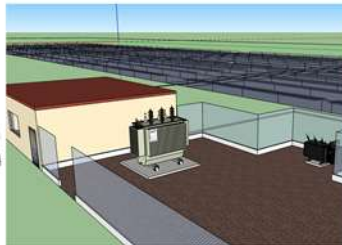
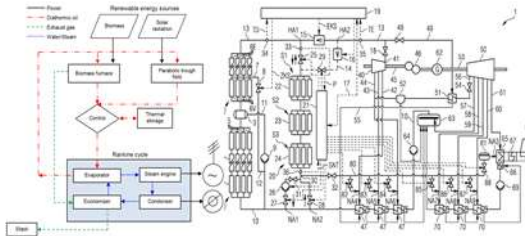


Hybrid Solutions



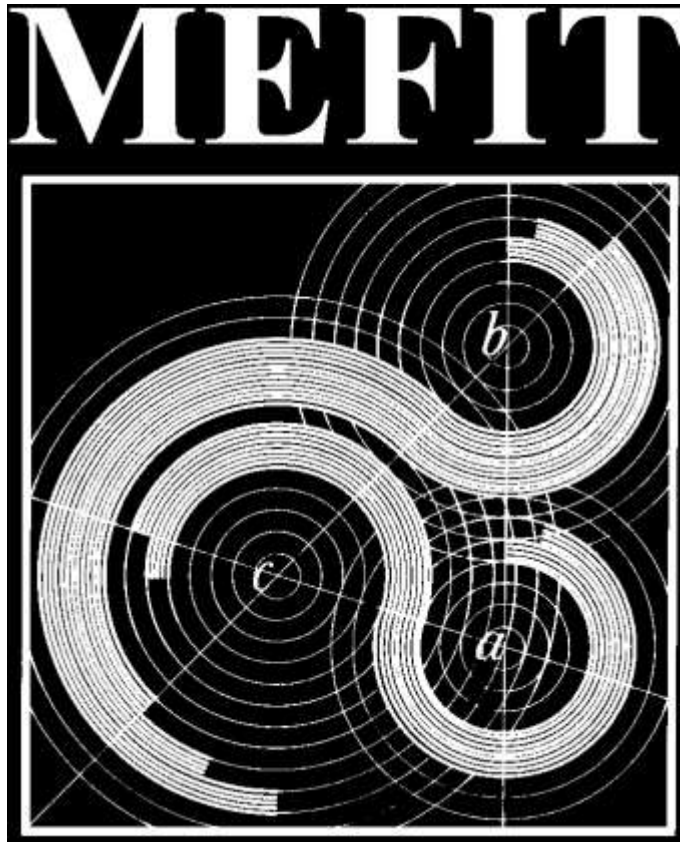
E f f i c i e n t F l e x i b l e R e l i a b l e

Services



Conclusions

1. MEFIT has the expertise and know how to understand not only the technical aspects but also the socioeconomic and cultural requirements of a project.
2. MEFIT is the ideal partner to evaluate various alternative solutions from a number of providers and develop the most efficient and economic system for the purpose.



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Thank You!