GE's Inovelis podded thruster unit is designed to increase the optimization for open water and dynamic positioning operation. It uses proven technology for significantly higher efficiency, compared to conventional azimuth thrusters.

The pod uses transformer-less drives with a range from 1.8 MW to 5.5 MW for offshore supply vessels, drilling rigs and ships, mega-yachts, ferries and research vessels.

The pump-jet electrical podded thruster enhances thrust capability and hydrodynamic efficiency to increase operational performance:
- Increased optimization for both transit and dynamic positioning operation
  - Global hydrodynamic efficiency
  - High thrust to power ratio in Bollard Pull
- Reduced maintenance and noise due to no L or Z gear
- Compact design for better hull integration

Key benefits

- This electrical podded thruster is based on a pump-jet compact design with high efficiency over a wide range of operation.
- An innovative pump jet arrangement with the stator vane in front of the impeller delivers higher efficiency. In fact, it provides the same results as a contra-rotating system with simple arrangement. In addition, the same unit can be used on both starboard and port sides of the vessel making management of spare parts easier and more cost-effective.
- The electrical motor integrated within the pod is based on induction technology which is the most reliable technology and can operate for extended periods without maintenance intervention.
- The fusion of electric propulsion and pump jet principles helps drive down the fuel cost. The Inovelis pod provides improved fuel efficiency over more traditional solutions.
Example of fuel savings

For a PSV driven by two 2.5 MW Inovelis pods, operating 30% of the time in transit at full speed, and based on a Marine Diesel Oil (MDO) cost of $1 000/t, the benefit in terms of fuel savings could be up to $250,000 in one year.

Technical specification – 2.5 MW version
- Vessel type: platform supply vessel, research vessel, ferries, mega-yacht
- Propulsion module with sealing dome
- POD type name: 2.5 MW pod Inovelis™
- POD type: pushing pod
- Rated power: 2500 kW
- Rated speed: 240 rpm
- Number of blades: 4
- Propeller type: fixed pitch
- Propeller diameter: 2.6 m
- Shaft direction of rotation looking from AFT: clock-wise
- Shaft seal type: lip seals
- Sea water seal type: lip seals
- Shaft bearing type: roller bearing
- Pod propulsion module dry weight: 38.2 t
- Steering module weight: 11 t
- Ice class: none

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