

Infotech Enterprises: Fuelling Innovation – Next Gen Product Family (NGPF) engines – design of P&W PurePower® engine

<p>Service Provider: Infotech Enterprises Ltd. Customer: Pratt & Whitney, US Vertical: Aerospace & Defence</p>	<p>Customer Profile: A USD 12.6 billion global engineering conglomerate and world leader in the design, manufacture and service of aircraft engines, industrial gas turbines and space propulsion systems</p>
<p>Project Profile:</p> <ul style="list-style-type: none"> Contributing to design and development of the next generation gas turbine engine based on 20 years of R&D by the OEM Infotech & client created collaborative Integrated Product Teams (IPT) with offshore-onsite model to work effectively on new product designs Infotech contributed to 22 per cent of global collaborative engineering efforts of the project by staffing highly skilled mechanical and Aerospace engineers Systems level aerodynamics, lubrication design, system dynamics and component lifting, etc., are some of the high value engineering activities that the Infotech team has worked on 	<p>Business Objective:</p> <ul style="list-style-type: none"> To design and develop a series of next generation aircraft engines that are environment friendly, Energy efficient with reduced operating costs for the airlines To develop a scalable engine design for a wider thrust range that would enable faster product developments for future programmes <p>Technical Objective:</p> <ul style="list-style-type: none"> The new design concept uses an advanced gear system, which allows the engine's fan to operate at a lower speed and the low-pressure compressor and turbine to spin at much higher speed, improving efficiency of the overall turbo machine These new generation engines are expected to provide improvements in fuel burn (-16 per cent), engine noise(-50 per cent to CAEP6), emissions (-50 per cent) and operating cost (-20 per cent) leading to overall savings of USD 1.5 million per aircraft per year
<p>Duration of the Project: Ongoing since February 2008 Tools/Technologies Used: State-of-the art design & simulation software like ANSYS, UG, Isight and many client proprietary tools and technologies</p>	<p>Team Description: Size: 200+ full-time engineers Profile: Design & validation experts</p>
<p>Awards and Recognition:</p> <ul style="list-style-type: none"> Popular Science Magazine Picks Pratt & Whitney's PurePower® PW1000G Engine "Top Aviation Technology" with 'Best of What's New Award' The engine has been selected for the Mitsubishi MRJ, Bombardier CSeries and Irkut MC21 	<p>Results Achieved</p> <p>Key Advantages:</p> <ul style="list-style-type: none"> Infotech engineers proposed more than 100 design concepts and piloted more than 65 product reviews Through best practices and mature processes, Infotech engineers aided a faster development cycle with a much lower cost <p>Innovations: Process automation done as a part of the project has led to significant cost savings of close to USD 1 million annually</p>