

6

SMART PROJECT APPRAISAL

COMPANY NAME:
FILE NUMBER:
ANNEXES/FOLIO'S:

| | |
|-----------------------------------|-------------------|
| Satellite Propulsion Research Ltd | |
| 931 | |
| Folio | Expert 1. |
| Folio | Expert 2. |
| Folio | Financial advice. |
| Folio | Patent Advice. |
| Annex 1 | Marking frame. |

EXECUTIVE SUMMARY:

IMPORTANCE OF THE TECHNOLOGY TO THE COMPANY AND/OR SECTOR:

EFFECT ON INDUSTRIAL COMPETITIVENESS:

JUSTIFICATION FOR THE USE OF PUBLIC FUNDS:

COMPANY VIABILITY:

| |
|--|
| A feasibility study into the application of innovative microwave thruster technology for satellite propulsion. The study involves development of an experimental thruster followed by independent tests and evaluation. Theoretical and market studies are included. |
| The project will prove or otherwise the feasibility of the concept of the mathematical modelling. This will enable the company to go forward with the idea should it prove feasible. |
| This is not applicable at this stage however a successful product will reduce the payload of a launcher to around half of the current weight. This will reduce the cost of launch by up to \$40m. |
| The project will not take place without Smart support. |
| Satisfactory. |

RESTRICTED-COMMERCIAL

EXPLOITATION PLAN/ROUTE: What is the proposed method of success and how does this relate to support for high growth, high technology business.

The market would welcome proof of such a product, if the concept is proven then the market would open up.

PROJECT ASSESSMENT OFFICER:
Who carried out the assessment.

[REDACTED]

PROJECT MONITORING OFFICER: If successful who will be the project officer.

[REDACTED]

SUMMARY OF VISIT: note all discussion points, actions taken and agreements/outcomes made.

Date: 12/06/01

Summary: There were no specific points to be addressed.

SUPPORT/NOT ACCEPTED FOR

SUPPORT: Summarise all advice and give your decision. If not accepted for support give full reasons. If accepted include all conditions of offer letter.

Recommendation: Support

BNSC has recommended support of the project, innovation, technical risk and commercial need have all scored highly. There is no doubt that the venture is high risk and for the results to have credibility they must be independently verified.

DERA were unable to provide anyone with technical expertise in this area.

[REDACTED] has recommended support subject to the recommendations in his report.

The patent office advice is that the only patents found are the applicants own and therefore the innovation is at the leading edge.

I recommend support of this project, subject to the conditions in [REDACTED] report.

BNSC – Support.

DERA: - No advice received.

Financial: -Support .

Patent office: N/A

Conditions of offer: As per [REDACTED] report

Subject to :

| Mark | Weight | Total | | Mark | Weight | Total |
|--|----------------|-------------------|--|---------------|-------------------------------|-------------------|
| Technological Aspects | | | | | | |
| 4 | x5 | 20 | Innovation HIGH (5) - Technically new in world terms; involves T/T from research. LOW (1) - New only to the firm concerned; trivial & low risk technology. | 4 | x5 | 20 |
| 5 | x2 | 10 | Assessment of R&D challenges/technical Risks HIGH (5) - Large degree of R&D required with clear objectives and methodology LOW (1) - Little R&D challenges with limited technical risks | 5 | x2 | 10 |
| 5 | x1 | 5 | Intellectual Property HIGH (5) - Complete protection LOW (1) - Non-protectable output | 5 | x1 | 5 |
| Commercial Aspects | | | | | | |
| 4 | x2 | 8 | Commercial Potential HIGH (5) - Strong need, clear demand. LOW (1) - Sales depend on stressing technical or other novelty. | 4 | x2 | 8 |
| 4 | x3 | 12 | Exploitation Potential HIGH (5) - Clear route to exploitation with sound business plan. LOW (1) - Speculative venture with no exploitation plan | 4 | x3 | 12 |
| Application/Business Aspects | | | | | | |
| 3 | x2 | 6 | Management Abilities HIGH (5) - Good all-round strength/experience LOW (1) - Lacking ability or deficient in certain skills | 3 | x2 | 6 |
| 3 | x2 | 6 | Additionality HIGH (5) - Well documented case; support essential. LOW (1) - Circumstantial need | 3 | x2 | 6 |
| 3 | x2 | 6 | Viability HIGH (5) - Sound business plan; no cause for concern. LOW (1) - Both business and project could fail. | 3 | x2 | 6 |
| 3 | x1 | 3 | Company/Applicant's Track Record HIGH (5) - Highly successful in field. LOW (1) - Failed to exploit opportunities. | 3 | x1 | 3 |
| WIDER ASPECTS | | | | | | |
| Good 1→5 | Neutral = 0 | Adverse -1→ -5 | Environmental Impact Positive, neutral or negative impact (to include impact on social environment as well as natural). | Good 1→5 | Neutral = 0 | Adverse -1→ -5 |
| Good 1→5 | Neutral = 0 | 8 | Design Impact GOOD - Product incorporates good design principles/enhances design capabilities. NEUTRAL - Design is not considered important | Good 1→5 | Neutral = 0 | 8 |
| WIDER ASPECT sub total | | 84 | Averaging and decision to be completed by Authorising Officer | | WIDER ASPECT sub total | |
| SCORE | | | Average Score (*/100) | % | SCORE | |
| | | 84 | 84 | | | 84 |
| Signed:/dated Project Officer: [Redacted] | | | | 25 June, 2001 | SUPPORT ✓ | REJECT |
| Signed:/dated Authorising Officer | | | | | | |
| Any Additional Instruction/Comment by Authorising Officer: | | | | | | |
| | | | | | | |

Authorising Officer: [Redacted Signature]

Signed: [Redacted Signature]

DATE: 27/6/01