



## QUESTIONNAIRE

### Section A

#### Instructions

The questionnaire consists of 24 questions. The following three types of questions are presented :

- a) Questions where it is expected of you to formulate an answer.
- b) Questions which are formulated in such a way that you can indicate your selection with a X.
- c) Questions which should be answered by rating the options. Please indicate your rating with a X, or a value with the scale indicated at the relevant questions.

The questionnaire will take approximately 15 minutes to complete.

### Section B

#### Definitions

For the purpose of the current research the following terms will be defined as follow :

**Technology** - Technology refers to special knowledge or a defined tool which is applied to achieve practical goal. An example is maintenance. Maintenance is used to assure the availability of an aircraft. Within maintenance there are different technologies in use like computers networks, special tools, maintenance schedules, special equipment etc.

**Technology Transfer** - Technology transfer is the movement and adoption of a technology from a originator to a user. Transfer does not only mean the movement but also includes the use of technology. Technology transfer also takes place inside an organization. The adopted new technology must be taught to the people inside the organization. A good example is a computer data network which is created by a specialist and the transferred (bought) to your organization.

**Transfer Mechanism** - This is the method by which the technology is transferred. An example may be a maintenance manual where a lot of knowledge are stored or a course where new knowledge and skills are attained.

**OEM** - Original Equipment Manufacturer. This is the manufacturer of the equipment you use in your organization..



**Section C**

**Biographical Information**

1. Please state the organization to which you belong. \_\_\_\_\_

2. Post/Position held in the organization. \_\_\_\_\_

2.1 How does your company categorize the post/position mentioned in (2) ?

2.1.1 Supervisor or below

2.1.2 Middle management

2.1.3 Senior management

2.1.4 Executive management

3. Indicate your highest level of qualification

3.1 Non university training:

3.1.1 Technical certificate/diploma

3.2 University training:

3.2.1 B - level

3.2.2 Honours - level

3.2.3 M - level

3.2.4 D - level

4. Please indicate your age group.

4.1 under 20

4.2 20 - 29

4.3 30 - 39

4.4 40 - 49

4.5 50 - 59

4.6 over 60



Section D

**Technology transfer from external environment**

5.1 Does your company utilize the opportunities to transfer technology from outside sources?

Yes	No	Don't Know
-----	----	------------

5.1.1 If yes, how effective would you rate the transfer.

1	2	3	4	5	6	7	8	9
low			average			high		

5.1.2 If yes, please rank (1,2,3...) the main sources utilized by your company.  
(1 indicating the most important source)

- 5.1.2.1 Original Equipment Manufacturers (OEMs)  
(like Boeing)
  - 5.1.2.2 Tertiary training institutes  
(like universities)
  - 5.1.2.3 Research institutions  
(like the CSIR)
  - 5.1.2.4 Name any other sources your company utilize
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

5.2 Does the transfer of technology from **outside** sources enhance the level of maintenance operations in your organization?

Yes	No
-----	----

5.3 Is there a gap between the technology available in your company compared to what is available in the market with special reference to maintenance operations?

Yes	No	Don't Know
-----	----	------------

5.3.1 If yes, how serious is this gap to your mind?

1	2	3	4	5	6	7	8	9
severe			restricting			insignificant		

5.4 Is there a formal **external** technology transfer strategy in your company?

Yes	No	Don't Know
-----	----	------------



5.5 Please rank (1,2,3...) the mechanisms of technology transfer from **outside**, used in your organization. (1 indicating the most important transfer mechanism)

5.5.1 Publications (technical magazines, manuals etc. )

5.5.2 Computerized data base/software

5.5.3 Lectures/conferences and seminars based on knowledge transfer.

5.5.4 Training based on skills development

5.5.5 Name any other mechanisms that come to mind

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5.6 Please indicate the possible barriers to the transfer of technology from **outside** sources.

5.6.1 No time

5.6.2 Too expensive

5.6.3 Current product/procedures meet the needs

5.6.4 Too much red tape

5.6.5 Management attitudes

5.6.6 Resistance to change

5.6.7 Name any other barriers that come to mind

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5.7 Does your organization invest in appropriate technology?

Yes	No	Don't Know
-----	----	------------



Section E

**Internal technology transfer**

with 6.1 Does your organization have a formal training program to transfer knowledge and skills reference to the maintenance function?

Yes	No	Don't Know
-----	----	------------

6.2 Please rank (1,2,3....) the sources of information according to effectiveness. (1 indicating the most effective source)

- 6.2.1 Manuals
- 6.2.2 Computer data base/software
- 6.2.3 Internet
- 6.2.4 Library
- 6.2.5 Mentorship
- 6.2.6 Experience
- 6.2.7 Representatives (ex. from OEMs)
- 6.2.8 Please indicate any other sources
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

6.3 What mechanisms do your company utilize to transfer skills and knowledge **within** the company?

- 6.3.1 Qualification courses
- 6.3.2 Enrichment courses
- 6.3.3 Refreshment courses
- 6.3.4 Workshops
- 6.3.5 Direct assistance
- 6.3.6 Conferences/seminars
- 6.3.7 Printed media (manuals, news letters etc. )
- 6.3.8 Internal computer network
- 6.3.9 Meetings



6.3.10 Please indicate any other mechanisms used

---

---

6.4 From the above mentioned list (6.3) please select the most effective mechanism in your opinion.

---

6.5 Please indicate the possible barriers to the transfer of knowledge and skills in your organization.

- 6.5.1 No time
- 6.5.2 Too expensive
- 6.5.3 Knowledge and skills adequate
- 6.5.4 Too much red tape
- 6.5.5 Management attitudes
- 6.5.6 Subordinate's resistance to change
- 6.5.7 Poor communication
- 6.5.8 Name any other barriers that come to mind

---

---

---

---

6.6 Do technical personnel fully exploit current technologies available in your organization?

Yes	No	Don't Know
-----	----	------------

6.7 Are the available technologies in your company appropriate?

Yes	No	Don't Know
-----	----	------------