

# Motivation within the security industry Click to start

Instructions for using the Analysis tool



# INTRODUCTION

The Analysis tool is designed for use with the *Motivation within the security industry* questionnaire. It allows you to enter questionnaire data and then scores your data automatically and produces graphs and tables of results which can be copied and pasted into reports and presentations.

The spreadsheet has a number of worksheets whose use and characteristics are described in detail below.

**CPNI**  
Centre for the Protection  
of National Infrastructure

**Motivation within the  
security industry  
QUESTIONNAIRE**

**SECTION 3: FAIRNESS**

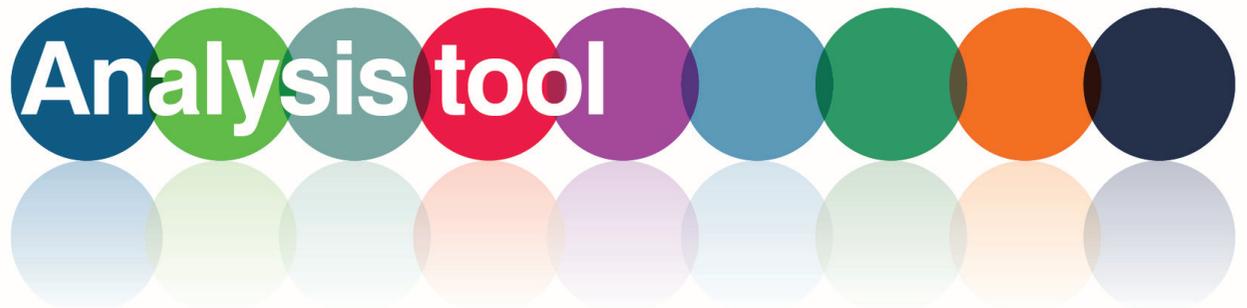
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
41. Everyone is treated equally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Poor performance is dealt with consistently across all staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. When mistakes are made they are dealt with fairly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. The organisation tries to be fair in its actions towards employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. I am not encouraged in my work by praise, thanks or other recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. I feel that I put in more effort than most of my colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION 4: YOUR TEAM**

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
47. I feel that I am part of a team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. I know who is in my team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. Our team meets together regularly to discuss work issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. I do not see my team leader everyday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. My team meets to reflect on how the shift has gone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. The team is able to take action to make changes to the way we do things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Teamwork exists in name only here	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. I believe that overall my team is not performing well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. My shift/team leaders are very supportive of me and my team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. My shift/team are able to decide how we go about a reasonable amount of our job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. My shift/team does not know how well we are doing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. I do things that are accepted by one supervisor but not another	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## USER BASICS

The spreadsheet can be downloaded from the CPNI website <http://www.cpni.gov.uk>. There are two versions which differ only in the number of cases they can process. Version A can process up to 2,000 cases but is a large file (40MB). Version B can process up to 500 cases and is only 10MB. Therefore if you have less than 500 security officers completing the questionnaire we recommend you download the smaller file (Version B).

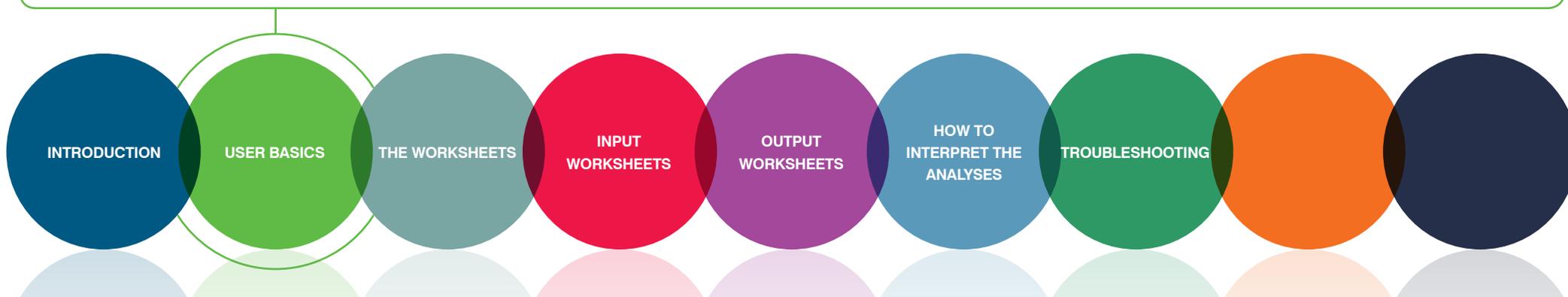
The spreadsheet is written for EXCEL 2003 but will run on earlier and later versions, although the layouts of the graphs and tables are sometimes affected.

### Enabling Macros

When you open the spreadsheet you should be prompted about whether to enable macros. Where possible you should click on YES when asked this question since otherwise some of the functionality of the spreadsheet will be lost. For example, some of the data validation routines will not work. However, some organisations do not allow EXCEL to run macros on their computers. If you are in this position, do not worry. All the major functions such as scoring the questionnaire and producing the tables and graphs will still work. You will just have to be slightly more careful entering your data.

### Taking copies of the spreadsheet

When you have downloaded a copy of the spreadsheet, it is best to take a copy of the file for actual use. You can take as many copies as you like and run as many surveys with it as you wish. If you enter data into the original copy of the file, remember to save that data in another file before deleting it and replacing it with data from another survey.



## THE WORKSHEETS

The spreadsheet contains the following worksheets:

### Input Worksheets

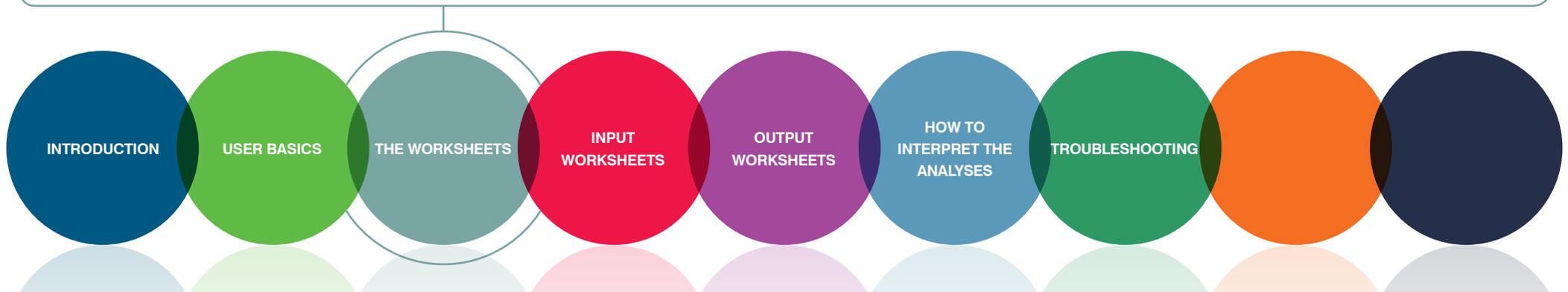
- Data set info.
- Data Entry Sheet
- Pasted Data

The Input Worksheets are used for specifying and entering data, they require you to input data and specific parameters.

### Output Worksheets

- Demographic Info & Graphs
- Organisational Influences
- Management Influences
- Components of Motivation

The Output Worksheets contain the results of your responses, these are presented as graphs and tables based on the data.



## INPUT WORKSHEETS

### The Data Set Info worksheet

This worksheet allows you to define the demographic variables that you use in your questionnaire survey and tailor the analyses that you carry out on your data.

You need to define your data before you start entering any since the programme is designed to only accept pre-defined data values for the demographic fields. This means that you have to do some preparation before collecting and entering any data and determine the values that you want to use.

The worksheet has six data entry fields:

1. Name of Organisation
2. Number of Cases
3. Data Entry Sheet
4. Display Item Scores by
5. Locations
6. Employers

These fields have three different colours of cell. The white cells are for information only. They are locked and cannot be changed. The yellow cells contain instructions and are also locked. The grey cells are the ones in which you can enter data.

	A	B	C	D	E	F	G	H	I
1									
2	<b>Data Set Information</b>								
3									
4									
5	<b>Name of Organisation</b>			Organisation A					
6									
7									
8									
9	<b>Number of Samples</b>			46		Incorrect Sample Size - Calculated Sample size is 45			
10									
11									
12	<b>Data Entry Sheet</b>			Pasted Data		Select from the pull down box.			
13									
14									
15									
16	<b>Display Item Scores by:</b>			Location		Select from the pull down box.			
17									
18									
19									
20	<b>Number of Locations</b>			2					
21									
22			<b>Enter Location Names:</b>			<b>Enter Location References:</b>			
23	North location 1		Location Name 1			1 Location Reference 1			
24	South location 1		Location Name 2			2 Location Reference 2			
25			Location Name 3			Location Reference 3			
26			Location Name 4			Location Reference 4			
27			Location Name 5			Location Reference 5			
28			Location Name 6			Location Reference 6			
29			Location Name 7			Location Reference 7			
30									
31									
32									
33	<b>Number of Employers</b>			0					
34			<b>Enter Employer Names:</b>			<b>Enter Employer References:</b>			
35	In house security team		Employer Name 1			Employer Reference 1			
36	Contractor 1		Employer Name 2			Employer Reference 2			
37			Employer Name 3			Employer Reference 3			
38			Employer Name 4			Employer Reference 4			
39			Employer Name 5			Employer Reference 5			
40			Employer Name 6			Employer Reference 6			
41			Employer Name 7			Employer Reference 7			

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## INPUT WORKSHEETS

### 1. Name of Organisation

Type into this field the organisation name that you want to appear on the graphs and tables you produce.

### 2. Number of Cases

This field allows you to check for certain sorts of errors and problems in your data. Type in the number of cases (i.e. respondents) that you believe is in your data set. The software then checks this by counting the number of cases actually entered, i.e. if you collected data for 46 security officers the system will check to see how many have been entered into the system, and might for example, report that there are only 45 cases in the data. If the actual number is different from the number you enter, an error message appears. Of course, when you first type in the number, since you will not have entered any data, the error message will appear. You need to check whether the error message is still there after you have entered all your data. You can also change the entry for the number of cases at any time if the number you expect has changed.

Once you have entered all your data, the error message can remain for a number of reasons. For example, you may have entered more or less data than you were expecting to, there may be empty rows in the data perhaps as a result of pasting new data into the wrong cells, or some data may be missing from one or more of your cases.

### 3. Data Entry Sheet

In this field, choose from the drop down list the method you want to use for entering your data. There are two options:

1. Use the Data Entry Sheet
2. Use the Pasted Data worksheet

Use the Data Entry Sheet if you want to type data directly into the spreadsheet. However, use the Pasted Data worksheet if you want to initially type your data into a different data file or files and then copy and paste the data from these files into the Pasted Data worksheet.

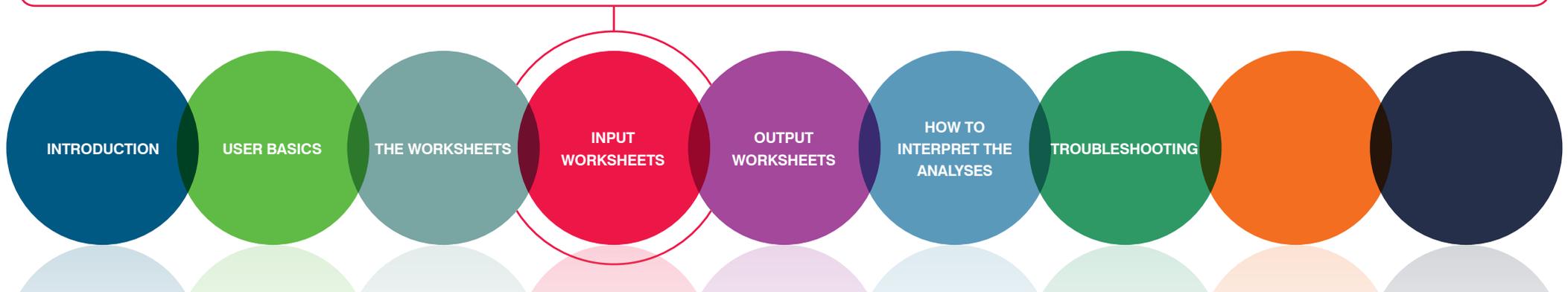
There are a number of reasons why you might want to paste data in from other sources. You may be collecting and entering data at a number of locations and want to aggregate them later. Alternatively, you may want to analyse only a part of your data. For example, you may want to do a separate analysis for only one of your locations. To do this, save your data in the Data Entry Sheet or in a separate data file and copy and paste the relevant location data into the Pasted Data worksheet. You can do this as often as you like. Just remember to update the Data Set Info worksheet each time you do a partial analysis.

### 4. Display Item Scores by

In this field, choose from the drop down list the demographic variable you want to use for producing a detailed analysis of scores on individual questionnaire items. There are two options, Location or Employer. Use the former if you want to see average item scores for each different location. Use the latter to see average item scores for each different employer. You cannot do both analyses at the same time. If you want to do the analysis both ways, do it one way first and take copies of the results, then redo the analysis the other way.

### 5. Locations

The Locations field allows you to identify up to seven different work locations which can be included in relevant analyses. You need to give each location a name and a code number. There must be at least one location. You can assign locations any code number and they do not have to be in sequence but they must be numbers. If you use letters or other non-numeric characters, the software will not recognise them. The software automatically recognises the code numbers you assign and these are the values which must be entered in the data sheets. Note that the software keeps a count of the number of locations you have identified and displays the count in the cell labelled Number of Locations.



## INPUT WORKSHEETS

### 6. Employers

The Employers data field allows you to identify up to seven different employers. This field works in exactly the same way as the Locations field. A count of employers is displayed in the cell labelled Number of Employers.

### *Other Uses of the Location and Employer Fields*

You can use the Location and Employer fields for capturing any sort of demographic data that you would like to use in your analyses. For example, you might use the Locations field for identifying different departments in your organisation or you might use the Employer field for identifying different grades of staff. The only rules are that you must have a different code number for each group identified and that you use these code numbers when entering your data. As part of your preparation for the survey, you will have to either provide a replacement front page for the questionnaire or provide respondents with explicit instructions about how to complete these fields.

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### The Data Entry Sheet

Use this worksheet if you want to type your questionnaire data directly into the GMQ spreadsheet. The columns in the worksheet should be used as follows and have the following characteristics:

#### Column 1 – ID:

This is an optional column and can be used for any of a variety of purposes. For example, use this column to assign each case a unique reference number or other identifier or it could be used to identify which department each respondent works in, etc. The column has no data validation and will accept any sort of value. This also means it will not identify missing or out of range data.

#### Columns 2 to 6 – Demographic data:

These columns are used to enter demographic data. Every column has data validation so that blanks or out of range data will be flagged as an error. **If any of the data for these columns is unknown or missing, enter a 0 (zero) in the relevant cell.** Zeros are identified by the software as missing data. Data can be entered by either typing in values or choosing them from the drop down list.

The detailed data entry requirements for each column are as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ID	Gender	Age	Location	Employer	Tenure	A1	A2	A3	A4	A5	A6	A7
2													
3													
4													
5													
6													
7													
8													
9													
10													
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#### NOTE

As you are entering data in this worksheet, your position in the worksheet is indicated by having the row and column of the cell you are currently editing highlighted in yellow. This allows you to tell quickly which respondent and question you are entering data for.

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### Column 2 – Gender:

Only three values are allowed in this column:

- 0 = Missing (blank or unanswered)
- 1 = Male
- 2 = Female

### Column 3 – Age:

There are nine allowed values in this column. Apart from the value for missing data, these are numbered from left to right on the questionnaire so that:

- 0 = Missing (blank or unanswered)
- 1 = Less than 21
- 2 = 21–25
- 3 = 26–30
- 4 = 31–35
- 5 = 36–40
- 6 = 41–45
- 7 = 46–50
- 8 = More than 50

### Column 4 – Location:

Enter in this column the code numbers for work location (or other user defined demographic variable). You can either type in the data or choose it from the drop down list. A maximum of seven locations can be identified and a maximum of eight values are allowed. A value of 0 (zero) indicates missing data.

Other values (code numbers) are user defined. Only those values defined by the user will be accepted when entering data.

### Column 5 – Employer:

This column is primarily used for recording which organisation employs the respondent but, as for location, it can be used for any user-defined purpose. Also a for location, you can either type in the data or choose it from the drop down list. A maximum of seven employers can be identified and a maximum of eight values are allowed. A value of 0 (zero) indicates missing data. Other values (code numbers) are user defined. Only those values defined by the user will be accepted when entering data.

### Column 6 – Tenure:

This column is used for recording how long a respondent has worked for their current employer. It has seven allowed values which, apart from the value for missing data, are numbered from left to right on the questionnaire, so that:

- 0 = Missing (blank or unanswered)
- 1 = Under 3 months
- 2 = 3 months–12 months
- 3 = 1–3 years
- 4 = 3–6 years
- 5 = 6–10 years
- 6 = Over 10 years

### Columns 7 to 98 – Motivation Question Responses:

These columns are used for recording responses to the motivation questions. **NOTE that if a question is blank or unanswered you should enter a value of 3.** Only five values are allowed in these columns and are numbered from left to right in the questionnaire as follows:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree nor Disagree/Blank or unanswered
- 4 = Agree
- 5 = Strongly Agree

You can either type in the values or select them from a drop down list.

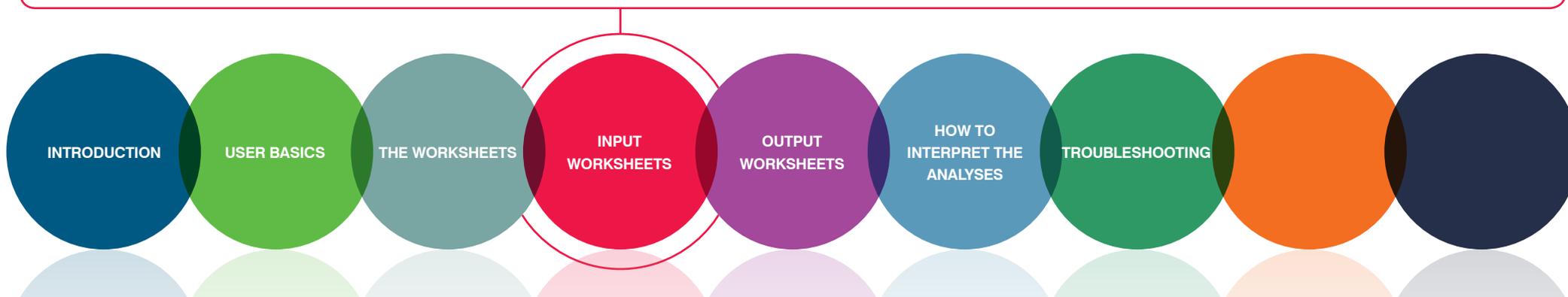
### Column 99 – Comments:

Use this column to record whether or not any comments have been made. Only two values are allowed which can either be typed in or selected from a drop down list:

- 0 = No comments
- 1 = Comments made

### Column 100 – Comment text:

Use this column to record the content of any comments made by a respondent. The column allows you to enter free text and has no data validation on it.



## INPUT WORKSHEETS

### The Pasted Data worksheet

Use this worksheet when you have been recording data in one or more other databases and want to collate all your data into one worksheet. This works most easily if you are transferring data from one EXCEL worksheet to another. Just highlight the data you want and copy and paste it into the Pasted Data worksheet. One way of doing this would be to take several copies of the GMQ scoring spreadsheet and record your data in the Data Entry Sheet. However, this can be done with any database package which allows you to exchange data with EXCEL.

	A	B	C	D	E	F	G	H	I	J	K	L	M
3	ID	Gender	Age	Location	Employer	Tenure	A1	A2	A3	A4	A5	A6	A7
4													
5													
6													
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When you first open the worksheet, you will see that apart from the top row and the first and last columns, all the cells are shaded amber. When you paste in data, all the cells will turn white unless there is a data error (e.g. the cell is blank or the value in the cell is out of range) in which case the cell will remain amber. In the example below the location number '4' was not entered into the Data set Info worksheet. Individual cells can be edited by hand. If you need to remove a whole row, this can be done using the normal EXCEL row deletion command.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
3	ID	Gender	Age	Location	Employer	Tenure	A1	A2	A3	A4	A5	A6	A7	A8
4	1	2	6	4	5	5	5	4	5	5	5	1	4	
5	2	2	8	4	5	7	5	3	4	5	2	1	3	
6	3	2	7	4	5	6	4	4	4	4	4	4	4	
7	4	1	6	4	5	8	5	4	5	4	4	2	3	
8	5	1	8	4	5	8	5	5	4	5	1	1	5	
9	6	1	8	4	5	8	5	4	5	3	4	1	2	
10	7	1	3	4	5	7	5	3	3	4	4	2	4	
11	8	2	8	4	5	7	5	5	5	2	2	1	1	
12	9	2	2	4	5	5	5	5	5	5	5	5	5	
13	10	1	8	4	5	8	5	2	4	5	1	2	2	
14	11	2	2	4	5	6	4	3	4	4	3	2	4	
15	12	1	5	4	5	8	5	4	3	5	2	1	2	
16	13	1	8	4	5	8	5	4	4	4	3	3	4	
17	14	2	4	4	5	6	4	4	4	5	3	3	4	
18	15	1	7	4	5	8	5	5	5	5	3	1	3	
19	16	1	8	4	5	7	5	3	4	5	3	3	3	
20	17	2	7	4	5	6	5	4	4	5	4	3	5	
21	18	1	4	4	5	8	5	4	3	4	3	2	3	
22	19	1	7	4	5	5	4	4	3	4	4	1	3	
23	20	1	6	4	5	8	4	2	4	5	2	2	2	
24	21	1	5	4	5	8	5	4	5	4	3	2	3	
25	22	1	8	4	5	8	5	4	4	4	4	3	2	
26	23	1	8	4	5	8	5	3	3	4	1	1	4	
27	24	2	8	4	5	8	5	5	5	5	3	3	3	
28	25	1	7	4	5	8	4	2	2	4	3	3	4	
29	26	1	5	4	5	8	4	4	4	5	2	4	4	
30	27	1	6	4	5	7	5	4	4	5	2	3	4	
31	28	1	8	4	5	8	4	4	4	3	2	1	2	
32	29	1	7	4	5	8	5	4	4	3	3	3	3	
33	30	1	7	4	5	8	5	4	4	5	5	5	5	
34	31	1	6	4	5	7	5	3	4	4	3	3	3	
35	32	1	7	4	5	5	5	4	4	4	2	1	1	
36	33	1	3	4	5	8	5	2	2	4	2	1	3	
37	34	2	8	4	5	8	5	5	5	5	5	1	4	

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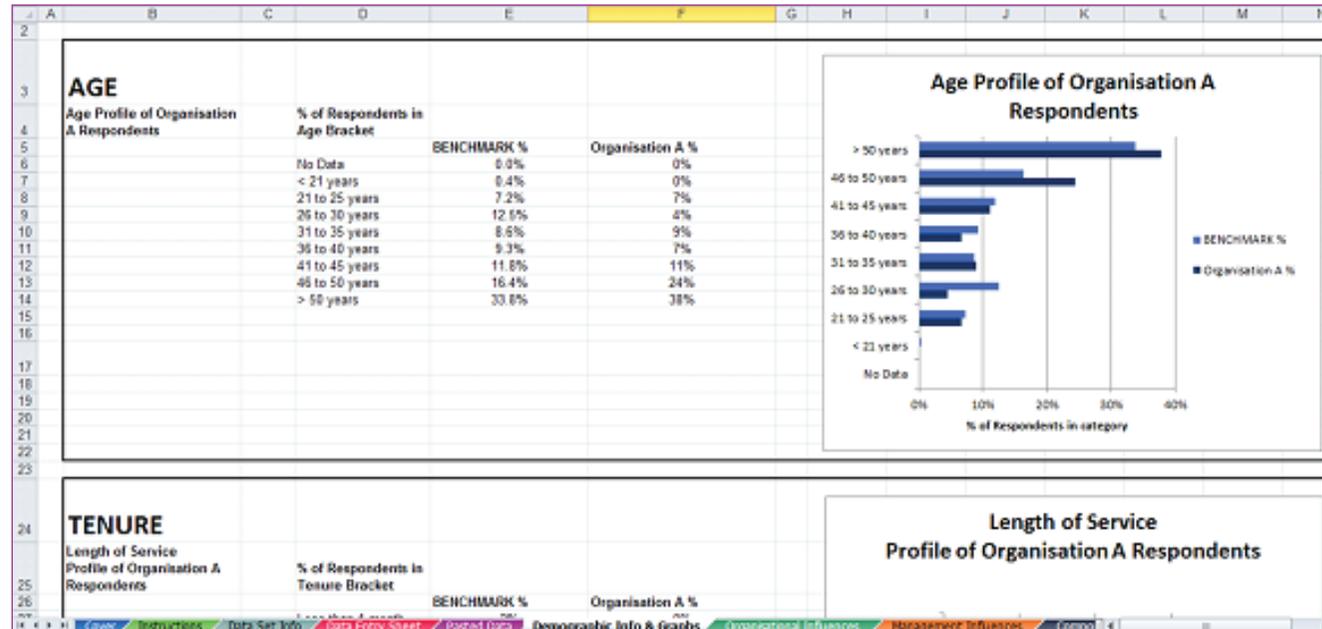
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The remaining worksheets all contain the results of analyses carried out on the data.

The **Demographic Info & Graphs** worksheet contains tables and graphs comparing your organisation's age, tenure and gender profiles with benchmark data, displaying the locations and employers covered by the survey and comparing the number of comments made in the survey to the benchmark rate.



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The **Organisational Influences** worksheet contains a table and a graph comparing scores on the organisational influence scales with the benchmark and a table showing average scores on the individual statements which contribute to the organisational influences scales for either different locations or employers, depending on which you have chosen, and for the benchmark.

The screenshot shows an Excel spreadsheet with the following components:

Values & Culture		North Location	Benchmark
A12	My job is not under threat	2.35	3.11
F64	Security is taken very seriously here	3.44	4.00
F67	There is effective coordination of security throughout the organisation	2.78	3.42
F68	Management is sincere in its efforts to ensure security	2.56	3.36
F71	I am confident that if I propose an idea to improve security it will be taken seriously	2.27	3.03
F75	Not following set procedures is always going to result in punishment	2.56	3.21
G84	Security incidents are always reported	2.62	3.62
G85	Rules are not best because of pressures of work	2.56	3.14
G86	Everyone wants to achieve high levels of security	3.29	3.83
G90	My organisation (i.e. my employer) believes security is important	3.99	4.00

Work Organisation		North Location	Benchmark
O9	I do not have enough freedom to make my own judgements about possible security threats	2.73	2.95
O20	Working conditions are not as good as I could reasonably expect	2.73	2.77

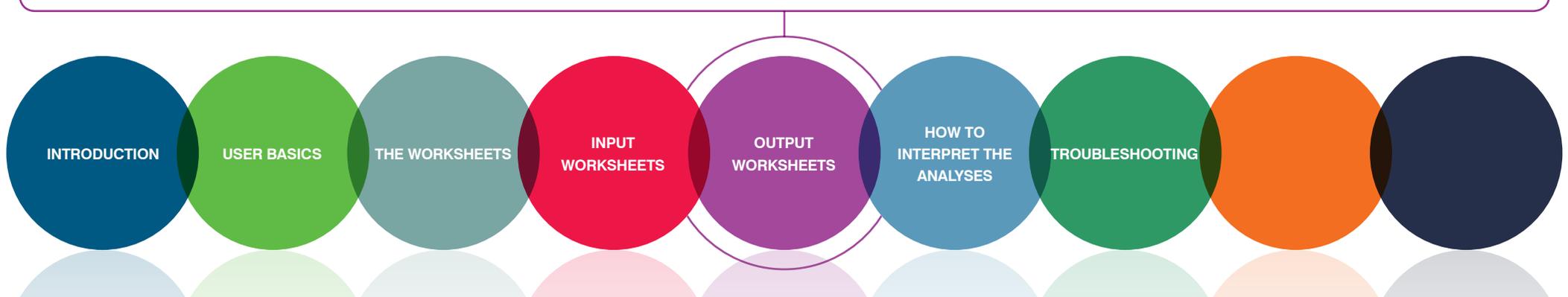
  

Organisational Factors	Organisation A	Benchmark	Difference
Values & Culture	2.86	3.45	-0.62
Work Organisation	2.60	2.95	-0.35
Equipment & Environment	2.93	3.33	-0.40
Organisational Characteristics	3.99	3.72	0.26
Team Functioning	3.05	3.44	-0.36

**Organisational Influences on Motivation**

Factor	Score
Team Functioning	3.05
Organisational Characteristics	3.99
Values & Culture	2.86



## OUTPUT WORKSHEETS

The **Management Influences** worksheet contains a table and a graph comparing scores on the management influence scales with the benchmark and a table showing average scores on the individual statements which contribute to the management influences scales for either different locations or employers, depending on which you have chosen, and for the benchmark.

Management Influences			
Organisational & Team Support		North Location	Benchmark
A11	When I do well, my team leader/manager recognises this	2.47	3.17
C36	Everyone is treated equally	2.02	2.73
C37	Poor performance is dealt with consistently across all staff	1.90	2.62
C38	When mistakes are made they are dealt with fairly	2.13	2.87
C39	The organisation tries to be fair in its actions towards employees	2.33	3.08
D46	My team meets to reflect on how the shift has gone	1.98	2.64
D60	My shift/team leaders are very supportive of me and my team	2.82	3.36
D61	My shift/team are able to decide how we go about a reasonable amount of our jobs	3.09	3.39
E54	This organisation learns from its experiences	2.40	3.15
E55	There is a process for providing feedback on my work performance	2.58	3.20
E56	I have the opportunity to discuss feedback on my work performance	2.80	3.15
E58	I am strongly encouraged to develop my skills	2.55	3.01
E62	My organisation rewards good performance	1.89	2.73
E64	I am confident that if I propose an idea to	1.77	3.04

Management Influences	Organization A	Benchmark	Difference
Organization & Team Support	2.32	2.94	-0.62
Role Clarity	4.01	4.11	-0.10
Manager Behaviour & Performance	2.66	3.15	-0.29

The bar chart shows two bars: 'Manager behaviour & Performance' with a score of 2.66 and 'Organisational Influences' with a score of 2.32. The benchmark for 'Manager Behaviour & Performance' is 3.15, and for 'Organisational Influences' it is 2.94.

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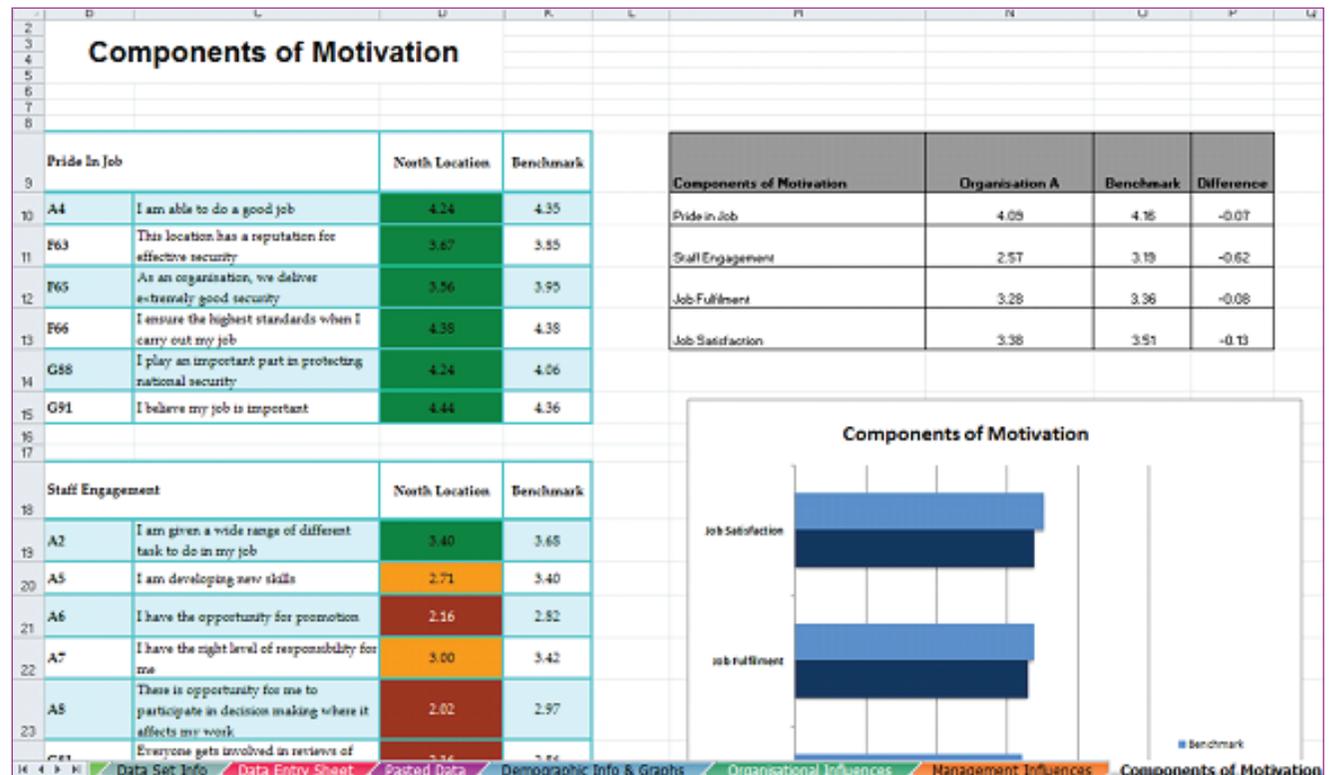
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## OUTPUT WORKSHEETS

The **Components of Motivation** worksheet contains a table and a graph comparing scores on the components of motivation scales with the benchmark and a table showing average scores on the individual statements which contribute to the components of motivation scales for either different locations or employers, depending on which you have chosen, and for the benchmark.



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## HOW TO INTERPRET THE ANALYSES

Once you have looked through the output worksheets, it is useful to know what they mean and how best to interpret the scores. Before we look at how to interpret the data, there are some basic rules which will apply across the worksheets.

### Demographic differences

All the demographic data is presented as the percentage of respondents who fall into different categories. As a general rule, if the total difference between the organisation's figures and the benchmark percentages is 20% or more then the organisation's profile is significantly different from the benchmark data. For example, consider the following gender data:

	Organisation	Benchmark
Male	70%	81%
Female	30%	19%

The difference between the organisation and benchmark figures is 11% for males and 11% for females. Adding these together gives a total difference of 22% which would be statistically significant for any reasonably large organisational sample of 60 or more participants. Percentage differences between any two groups, for example, between two different locations, which are greater than 20% are also likely to be statistically significant.

### Scale scores

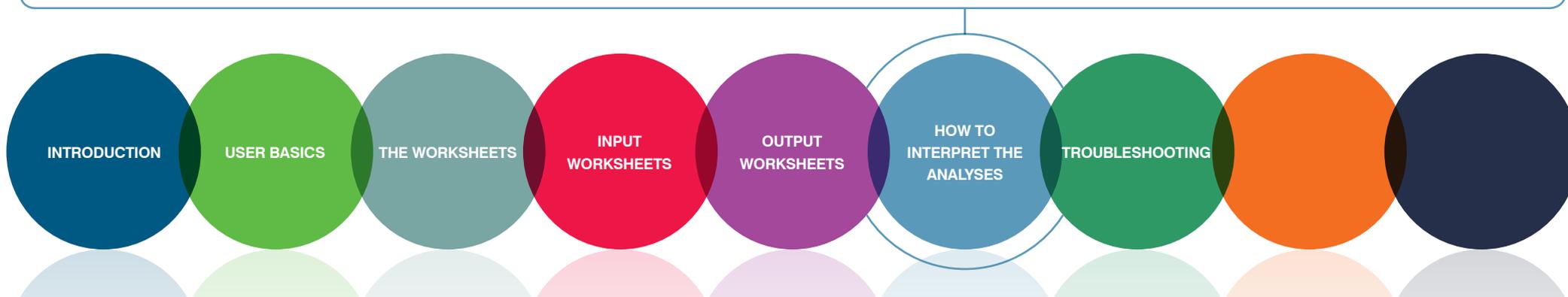
In the influence and components worksheets, the figures all relate to the five point scale which is used in the questionnaire. The scoring takes into account whether the statement is positively or negatively worded. Scores, therefore, range from 1 (very low) to 5 (very high). When interpreting scores you need to consider both the absolute score value and how it compares to the benchmark. The current benchmark is based on responses from 790 security staff from 17 employers working at 20 locations. Over time, the benchmark data will be added to and updated.

### Absolute scores

The questionnaire uses a response scale which runs from strongly disagree to strongly agree. There is a tendency for respondents not to use the extremes of this scale so scores of 1 and 5 are not very common. This means that an average score for your sample of 4 or more indicates a very high score for the sample and an average score of 2 or less is a very low score. The best way of thinking about these scores is that a score above 4 means that almost all respondents have either agreed or strongly agreed with the positive side of the statements while a score below 2 means almost everyone has agreed or strongly agreed with the negative side of the statements.

The effective score range is, therefore, from 2 to 4. The midpoint, 3, is important. Scores above 3 mean that more people have responded positively than negatively while scores below 3 mean that more people have responded negatively than positively. With these points in mind, the following table can be used to interpret scores for both the influence and component scales and individual statements:

Score	Interpretation
> 4.00	Very good score. Improvement action unlikely to be necessary but may have organisational benefits.
3.67 – 4.00	Good score. Improvement action only necessary if significantly below benchmark.
3.34 – 3.66	Passable score. Improvement action only necessary if significantly below benchmark.
3.01 – 3.33	OK score but room for improvement.
2.67 – 3.00	Weak score. Improvement action likely to be necessary.
< 2.67	Very weak score. Improvement action likely to be urgent.



## HOW TO INTERPRET THE ANALYSES

A simplified version of this scale is provided in the colour coding used in the tables of individual statement scores. The scale, shown below, can also be found in the three influence and component worksheets and can be copied and pasted into reports.

Average Item Score	Interpretation	Colour in tables in this section
> 3.33	Good	
3.01 – 3.33	May need some improvement	
2.67 – 3.00	Weak	
< 2.67	Very weak	

### Comparisons with benchmark scores

Different organisations will, of course, have different numbers of participants and what counts as a significant difference between the organisation's scores and the benchmark scores, strictly, will vary from organisation to organisation. However, the following rules will apply to almost all organisations since they will usually indicate differences which are both statistically significant and meaningful:

- Differences between the organisation's and benchmark scores, for both the scales and individual statements, of more than 0.2 score points are sufficiently large to say with confidence that one score is better than the other.
- Differences between the organisation's and benchmark scores of more than 0.3 score points indicate very significant differences with major differences in the score patterns of the two groups.

### Interpreting worksheet analyses

#### Interpreting the demographic data

There are three main questions you should ask of the demographic data:

1. Determine how representative is the survey sample of the organisation as a whole or of the part of the organisation being surveyed. You will have to draw on your own knowledge of the organisation to answer this question. You should also consider what proportion of the target sample has responded. The higher the proportion the more accurate the findings will be. This is especially important when the target sample is small. For example, you may have a location with only six security staff but if five of them respond you will have an accurate estimate of motivation within that location. With large, representative

samples, the proportion does not matter so much but with target samples of 60 – 100 you really want to have more than 30% responding and with target samples of less than 60 you want at least 50% responding. Clearly, if both the sample and the proportion is either very small or unrepresentative or both, the analyses have to be interpreted with caution since the results may be biased towards certain groups.

2. Note any large differences in response rates from different parts of the organisation. These may reflect differences in staff motivation. More motivated staff are more likely to respond. However, there are other possible explanations. For example, low response rates may be caused by logistical problems or by the attitude of the person responsible for organizing the survey in that part of the organisation.

3. Determine how comparable the organisation's demographic profile is to the benchmark. If the profiles are significantly different, the benchmark data may not be entirely relevant and, again, the analyses have to be interpreted with caution. We know, for example, that female staff, recent recruits, more senior managers and younger staff, all tend to score higher than average.

The other piece of information worth considering is the proportion of respondents who write comments. Staff do,

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occasionally, write positive comments on the questionnaire but, far more often, comments are critical. Analysis of comments from the benchmark sample indicates that organisations where significantly more comments are written than the benchmark figure also tend to be low scorers on many aspects of questionnaire statements. Conversely, those with significantly fewer comments tend to be higher scorers and the comments are more likely to be positive.

### *Organisational influences data*

There are 32 statements in the organisational influences set organised in five influence scales. These statements are concerned with staff perceptions of how well activities, processes and working practices which are likely to influence motivation are designed, organised and implemented within the organisation. The organisational influences can directly affect scores on the components of motivation by promoting allegiance, loyalty, commitment and a sense of engagement

Note that scoring high on all the organisational influences does not guarantee that you will have a highly motivated workforce. There are other influences to take into account. In particular, the organisational influences interact with the management influences to determine how staff feel about the work they do and how motivated they are to do it well.

### *Management influences data*

There are 34 statements in the management influences set organised in three influence scales. These statements are concerned with staff perceptions of the performance and behaviours of managers and supervisors in activities which are likely to influence motivation. As for the organisational influences, the management influences can directly affect the components of motivation. This works mainly through the extent to which staff believe that their managers and supervisors have their best interests at heart, are just and fair, are trustworthy and are competent.

Although management influences affect scores on the components of motivation, both directly and through their interaction with organisational influences, it does not always follow that the scores on the influence scales are mirrored in scores on the components. The Interventions Matrix in the Guidance document shows which influencing factors tend to go together and which components of motivation they affect most. So, for example, Working Practices (one of the organisational influences) and Manager / Supervisor Behaviour and Performance (one of the management influences) tend to go together and predict the component of motivation Job Fulfillment. However, there are occasions when scores on the two influence scales can be low but the Job Fulfillment score is high and vice-versa. The former can

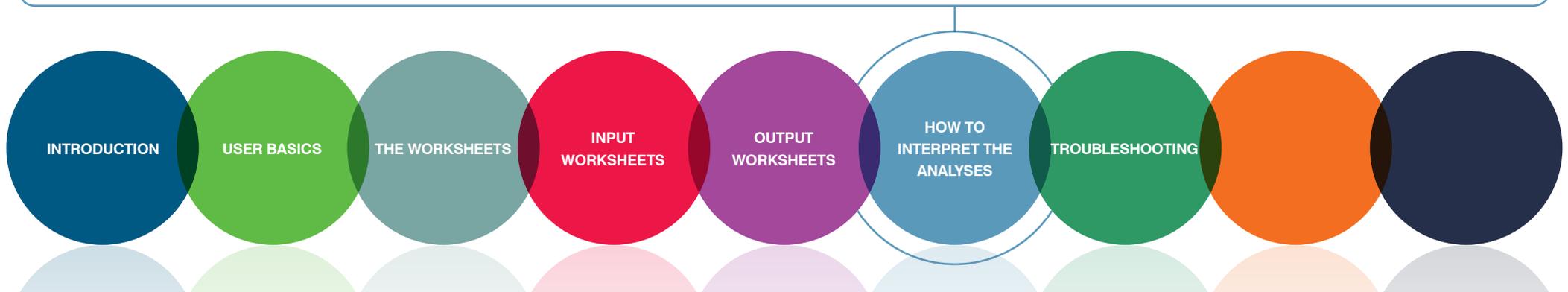
happen if staff feel that the job is inherently fulfilling in spite of weaknesses in the way the organisation and its managers / supervisors act. The latter can happen when, for example, in spite of the best endeavours of the organisation and its staff, the job is inherently unfulfilling.

Likewise, staff can have pride in their job and get job satisfaction but be unhappy with management. In such circumstances, management performance is a constraint on staff being fully motivated.

### *Components of motivation data*

There are 24 statements in the components of motivation set organised in four component scales. These statements are concerned with how staff feel about the work they do and the degree to which they are committed to that work. These feelings will be affected by how well they think they are being treated by the organisation and their managers and supervisors.

Staff who score high on these components are likely to translate these feelings into motivated behaviour. However, motivation is only one of the factors that influence behaviour. It is possible for an organisation to have all the influencing factors in place and to have a highly motivated workforce and still not perform well. For example, if the standard of performance expected by the organisation is low or



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misconceived, the organisation will get unsatisfactory performance no matter how motivated the staff are. Indeed, in some cases, staff may be highly motivated to perform in counter-productive ways.

### *Interpreting the influences and components of motivation data*

When interpreting the data analyses in the influences and components of motivation worksheets, you should ask the following questions:

1. Are there any influence or component scales which score in the weak or very weak range?
2. If there are weak influence or component scales, these will have one or more statements which score in the weak or very weak range and these should be identified and will be the focus of any decisions about improvement actions.
3. Check whether the statement scores are consistently weak across all locations or employers or whether some of these have good scores. If so, what is different about them, what are they doing better, what can be learned by other locations or employers from them?
4. If there are no weak scale scores, are there any in the "room for improvement" range?

5. If there are scale scores in the "room for improvement" range, do any of the statements in those scales score in the weak or very weak range? These should be considered as a focus for improvement actions, particularly if there are no weak influence scores.

6. If there are no statement scores in the weak range, there will be scores in the room for improvement range and these will become the focus of improvement actions.

7. Even for scales where the scores fall in the passable or good ranges, it is possible that there may be statements related to those scales which have scores in the room for improvement or weak ranges. Often these weak scores will be restricted to particular locations or employers. These statements might, themselves, become the focus for improvement actions but it is often more effective to examine all the weak or room for improvement statement to see if there are some common themes. For example, it is quite common in the benchmark data to find that inconsistency and lack of staff engagement emerge as themes across the scales.

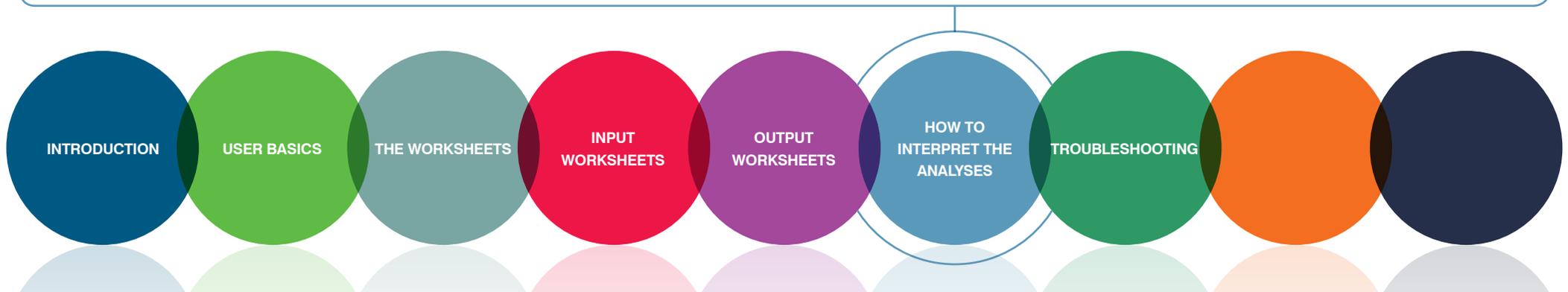
8. Check for any scales or statements where the organisation's scores are significantly lower than the benchmark. These scales need not be in the weak or room for improvement ranges. There are some scales where the

benchmark scores are in the good or even the very good range. A score which is significantly lower than one of these benchmark scores suggests that there is something relatively straightforward that can be done to improve. Whenever your organisation has a score significantly lower than the benchmark, it suggests that there is some good practice out there which you ought to be able to adopt.

9. Identify those scales where the organisation scores in the good or very good range, particularly if those scores are significantly higher than the benchmark. It is important to remember when reporting the results of the analyses that you should not just focus on weaknesses. You need to recognise strengths as well as weaknesses and think about what you are doing in these areas that might have implications for other influences and components.

### *Choosing amongst options for improvement*

You may find when you run a survey that the process set out above identifies many areas where improvements may be needed. You should never try to tackle all of these improvements at once. Generally, three or four areas are the most that should be worked on at any point in time. There are a number of criteria that can be used to choose amongst the available options:

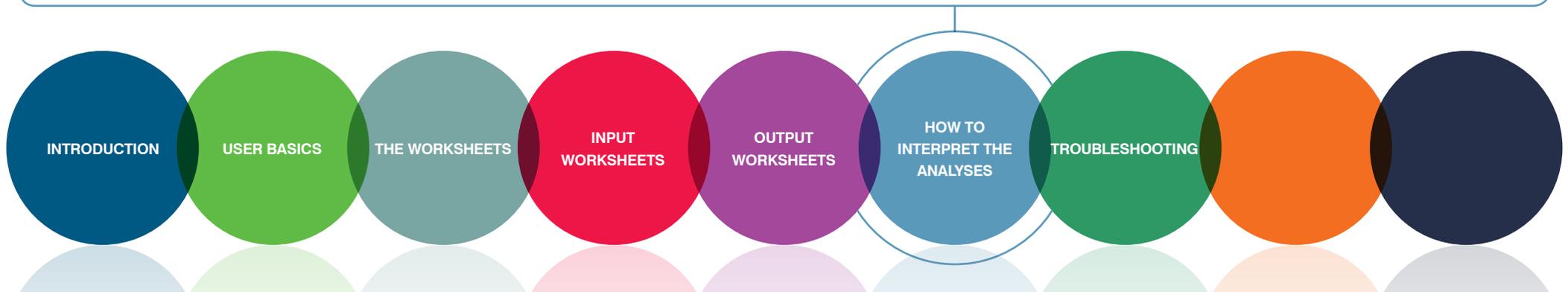


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1. Select the three or four lowest scoring statements and tackle those. This is the simplest approach but not necessarily the most effective since it may lead to a shotgun approach to improvement.
2. Tackle one influence area or component of motivation at a time. Again, this is a simple approach and has the benefit of being more coherent but may fail to get the extra benefit of tackling issues that cross influences and components.
3. If you have identified themes in your analysis of weaknesses, address one theme at a time by tackling all the weak statements in that theme.
4. Identify two or three themes that you want to tackle and identify one or two statements related to each theme which, if improved, will have the most impact. It is often the case that making improvements in one area will feed through into improvements in other areas.
5. Start by addressing those areas where there is the greatest disparity either between different parts of the organisation or between the organisation and the benchmark.

6. Tackle those areas first where change is most likely to be feasible. Being seen to take effective action will be beneficial in its own right and, again, you are likely to get feed through into other areas.
7. Tackle those areas first that are likely to have the greatest organisational benefit.

The best approach will be different from organisation to organisation and you will need to decide for your organisation what your priorities should be.



## TROUBLESHOOTING

There are two problems you may encounter when using the spreadsheet. Unfortunately, these are known bugs in Excel which we cannot remove. However, the problems can be easily fixed as follows:

*1. The tables showing scores for individual statements in the Influences and Components of Motivation worksheets have extra, unused columns in them.*

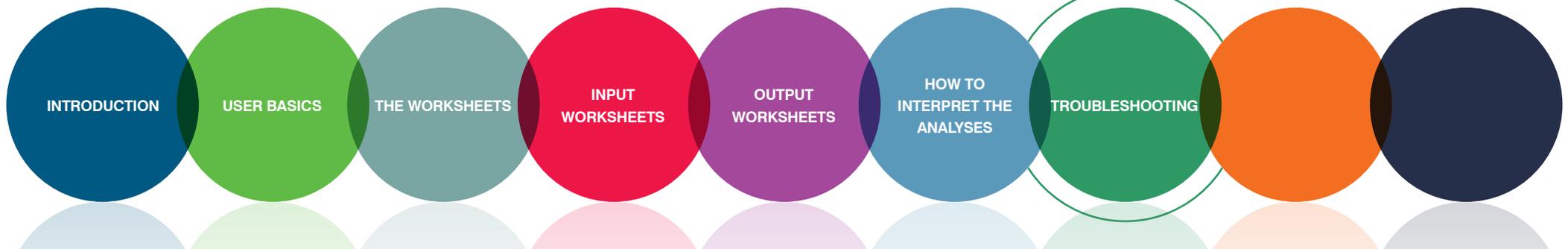
*How to Fix:* First, go to the Data Set Info worksheet and check that you have Enabled Content / Enabled Macros. If you haven't, there will be a warning message just above the data entry fields. Second, if enabling the macros does not immediately solve the problem, go to the "Display item scores by" box and change the option for displaying data (i.e. from employer to location or from location to employer) and then change it back to the option you want. The tables should now be updated.

*2. The graphs for the distribution of locations and employers have only one bar and don't show different bars for different categories (even though the correct data can be seen in the table next to the graph).*

*How to Fix:* First, go to the Data Set Info worksheet and check that you have Enabled Content / Enabled Macros. If you haven't, there will be a warning message just above the data entry fields. Second, do one of the following:

A. save your spreadsheet (making sure you save all changes) and close it. Then simply open the file again. The problem should now be fixed.

B. save your file (with all changes) to a new file with a different file name. When you open this new file, the problem should be fixed.





## Contact us

For further information or to contact us please see the CPNI website on [www.cpni.gov.uk](http://www.cpni.gov.uk), or telephone 020 7233 8181

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