



Report-writing guideline

TABLE OF CONTENTS

Section 1: Content

Section 2: Structure

Section 3: Language and style

Section 4: Recommendations

Section 5: Non-textual material

Appendices

1: Using MS Word's readability statistics

2: Tables, charts and graphs

FOREWORD

The European Court of Auditors (ECA) reports are the main means by which those outside the ECA judge the external audit institution of the European union. How an audit report presents the Court of Auditor's findings, conclusions and recommendations can make a big difference to how the audit is received and the impact that it has. The Court of Auditors succeeds in producing reports which stand comparison, in terms of clarity and usefulness, with those of national or regional audit institutions across the Union. This guideline is intended to help in maintaining and building on that achievement.

This guideline supplements the guidance available in the Performance Audit Manual (PAM) – especially in Chapter 5, *The Reporting Phase*. Its main focus is special reports, although much of the material should also be useful for those drafting chapters of the annual report and other documents.

Writing good quality audit reports is not easy. The subjects covered in the ECA reports are often complex and technical. Out of many months' audit work the audit staff needs to produce reports that readers can understand and that are likely to have an impact on politicians and EU citizens.

These challenges are faced by all national and regional audit offices around the world. At the Court of Auditors, the auditors face the additional challenge that those writing and reading our reports are often not doing so in their mother tongue. The ECA reports need to be straightforward to translate into all the other EU languages.

Court of Auditors reports are not popular journalism; but nor should they be written in a way which can only be understood by policy experts. A theme which recurs in the sections below is to think of the reader. The ECA should write reports for the reader, not for itself. But who is the reader and how can one best try to ensure that reports are written for him/her?

The ECA reports are "for the attention of an interested but non-expert reader who is not necessarily familiar with the detailed EU or audit context" (PAM, 5.3.1). To achieve this aim, there is no substitute for putting oneself into the shoes of potential readers and asking: *Could I understand this particular point if I were a journalist, a Member of the European Parliament or an interested member of the public? Would I see how it fits into the argument being advanced? Would I be persuaded by the argument? Could I trust what the Court of Auditors is saying?*

The Court of Auditors, of course, is not alone in seeking to encourage better writing. The Commission has its own *Clear Writing Campaign*. Included among the Commission's materials is a booklet, *How to Write Clearly*, available in all EU languages. Over the years, the European institutions have developed a vocabulary that differs from that of any recognised form of English. Therefore in May 2013, the ECA published its first "a brief list of misused English terms in EU publication", which can be downloaded from ECA website – other publications.

Appendix 1 provides details on how to use Microsoft Word's readability statistics function to help in your writing. **Appendix 2** provides further details on presenting tables, charts and graphs.

List of related documents

Performance Audit Manual

Whom to contact

If you feel that the information provided in this document could be improved, please do not hesitate to communicate your suggestions to: ECA-AMS.CONTACT@eca.europa.eu.

SECTION 1: CONTENT

The PAM prescribes how a special report should be organised and what material should go where. A special report should have five sections:

Executive summary – reflecting accurately and comprehensively what is in the report, with the emphasis on the main conclusions of the audit and an outline of the recommendations. A length of around two pages is suggested.

Introduction – the context of the audit, helping the reader to understand the observations. Additional detail can be provided in an appendix, if necessary.

Audit scope and approach – setting out concisely: the audit subject, audit questions answered, scope, criteria and methodology and approach.

Observations – the main body of the report, containing the audit findings and evidence. See also the box below.

Conclusions and recommendations – the answers to the questions set, and recommendations for improvement.

Writing the **introduction** requires careful judgement about what to include and what to exclude. The introduction to an audit report is intended to be just that: an introduction to an audit report. It should not be a comprehensive description of the subject being audited. The report should not be weighed down with lengthy introductory material which merely delays the reader in getting to the rest of the report.

Tip 1: Use appendices to provide information that some readers might find interesting but which is not essential to understanding the report's messages

An introduction might set out the intervention's objectives and key characteristics: the roles and responsibilities of the main players, the main regulations, budgetary arrangements, systems and processes, and the types of projects/ programmes financed. But the golden rules are that an introduction should contain all that is necessary to permit an interested but non-expert reader to understand the context of the audit well enough to make sense of the observations, conclusions and recommendations – and no more than necessary for that purpose. Additional information that you think might interest some readers can be put in an appendix.

It is important that the reader of the report knows what is included (and excluded) from the scope of the audit, as performance audits vary greatly in scope and approach. The reader also needs to know what we have done to arrive at our findings and conclusions, and to appreciate that they are firmly rooted in sound audit evidence. The **audit scope and approach** section should provide a brief summary of audit work carried out, with fuller details (if likely to be of interest to some readers) in an appendix.

Tip 2: Make sure that your observations contain sufficient information to illustrate how and why the conclusions have been drawn

The **observations** section is likely to be the longest and most important part of the report. It also tends to be the most challenging to write. Having a sound structure (see next section) is more than half the battle. Once the structure has been established, the PAM sets out for writers those elements that should accompany the observations (PAM 5.4.2.4).

Standard (criteria)	The basis against which the actual situation was judged – regulatory or normal practice requirements, or standards set by management or by the auditor
Work done	What was examined and why – the extent and scope of testing
Facts	The situation found – including its cause and materiality – making apparent the source and extent of evidence
Impact and consequences	What the finding means – including the effect on the EU budget – and why it is important

The PAM does not prescribe that each observation should comprise four separate sections, spelling out each of these elements. Instead, the requirement is that the four elements "should be apparent to the reader".

Here is a fictitious example of how this might work in practice:

The Commission, in assessing grant applications, rarely considered the financial standing of the organisation making the application. Of the 30 applications we analysed, only four contained any evidence that the Commission had probed the financial viability of the applicant. Moreover, in our survey to applicants, 87% of those who responded commented that they had not been questioned about the robustness of their finances, nor asked to provide any evidence of current financial status. These are projects that typically extend over many years and where considerable sums of money are involved. The risk for the Commission is that applicants may not have sufficient resources in reserve to guarantee their financial stability over the life of the project.

In this example, the first of the four elements, the *standard*, is not spelt out. Is it “apparent to the reader” that the Court considers that thorough review of grant applications should include consideration of the financial standing of the applicant? If you think no, then you should add this point to the text. The second and third elements, *work done* and *facts*, are combined: we analysed 30 applications in detail, and surveyed 100 grant applicants. This piece of methodological detail is included as part of reporting what we found – the evidence base for our initial assertion. Finally, the fourth element, *impact* and *consequences*, is covered – an indication of why this omission by the Commission is significant.

Tip 3: Reports should be appropriately balanced

A common issue that report-writers need to tackle is that of balance in a report. It is tempting to focus on negative findings and on exceptions to acceptable practice, on the grounds that that is what is most interesting for our readers.

However, the Court of Auditor’s reports will carry more authority, and be less open to successful dispute by the auditee, if criticisms of failings are given a weight in the argument and presentation proportionate to their importance.

Answering the audit questions

The PAM refers to structuring the observations section around audit questions (see PAM 5.4.2.4), but does not specify whether and where questions need to be set out in the text, nor where the answer should be given. Matters of this sort depend to some extent on the nature of the material being reported, and there is therefore scope for discretion. One possible way of handling this issue is as follows:

Put the relevant audit question in each section of the observations, and make sure that you also provide an answer to that question in that section (rather than not answering it at all, or not answering it until the conclusions and recommendations section).

The answer to the overall audit question can then be provided in the conclusions and recommendations section (as well as the Executive Summary), which also provides an opportunity to:

- repeat, as necessary, the answers to the level 2 questions;
- draw attention to any links, or patterns, between the findings which have not already been made; and to
- set up the recommendations.

SECTION 2: STRUCTURE

There must be a logical progression of the argument, which is clearly signposted by means of the appropriate use of headings and sub-headings. (PAM 5.4.2). A sound structure in line with these principles makes the arguments more powerful, and helps the reader understand them.

The ECA's guideline on Issue Analysis and Drawing Conclusions (IADC) explains how to construct an argument in a pyramid form, using the same logic that the Court of Auditors applies when formulating audit questions. Using this technique, and developing an **outline of the report** before drafting the full report, will normally provide a robust structure for the report. A successful structure should mean that readers never find themselves questioning why they are reading a particular sentence, paragraph or section, or how it fits in with the overall argument.

Tip 4: One issue per paragraph

A good rule is: only one issue in each paragraph. In general, the first sentence or two in the paragraph should set the scene for the rest of it, by explaining what the paragraph is about and summarising the main point made (see also the box below). The remainder of the paragraph might then expand on this initial point – for example, by justifying it, or adding further details.

Tip 5: Help the reader follow the argument as much as possible

In the interest of making it as easy as possible for the reader to understand the flow of a report's argument, writers should provide as much help – and as many signposts – to the reader as possible. For example:

- As explained in the Drawing Conclusions section of the IADC guideline, assertive headings (or “speaking headings” of the type, *The Commission managed the programme well/poorly*, as opposed to just *Management of the programme*) can be very helpful in guiding the reader.
- Long passages of unbroken text are very off-putting for readers. Breaking text up with figures or case studies can help, but as a rule try to avoid more than 6-7 paragraphs without a sub-heading¹.
- Conjunctions at or near the start of sentences, providing they are used correctly, help the reader identify the train of thought: *however, in contrast, although, in addition, nevertheless, similarly* etc.².
- The message conveyed by each graph or chart should be set out clearly – more details are in Section 5 below.

Indents/bullets

The use of indents or bullet points can be very helpful for readers. Not only do they add variety to the text but, by grouping items so clearly, they help the reader understand the logic of the argument. In fact, as a writer, the habit of looking to group items can help you to see patterns in your findings and can therefore assist in structuring text. Indents can be over-used; reports should not end up looking like shopping lists. But when used on a selective basis they can be very effective. When using them, do not have more than about six items in your list, and make sure that you punctuate them consistently. Numbering (i) (ii) etc. or lettering (a), (b) etc. is preferable to bullet points, to make referencing easier.

Tip 6: Stick with the structure you have chosen; change the structure if necessary, rather than break it

It is frequently the case that not all the evidence collected by an audit is needed for the conclusions; and not all areas covered by the audit are material enough to be reported. Report-writers need to be ruthless in selecting issues for inclusion, and avoid the natural temptation to include as much of their work as possible in the final report. Including findings that sit outside the main arguments – and therefore structure – of the report will dilute its impact.

The corollary is that if you decide that a particular point, sitting outside the structure, is so significant that it must go in the report, then you should change the structure and/or the key messages.

¹ Do not err too far in the other direction, and add a sub-heading for each paragraph or two. And while not all sub-headings need to be reflected in the Table of Contents, do not confuse readers by having too many levels of headings.

² It is acceptable occasionally to start sentences with *and* or *but*.

SECTION 3: LANGUAGE AND STYLE

For the benefit of ECA's outside readers, the audit reports should be as clear as possible. Clear content, structure and good signposting will all contribute to a clear report. Below are some suggestions to help in writing ECA reports clearly and in a way that helps the reader.

A common tendency in writing at the Court of Auditors (and many other bureaucracies) is the use of a style that is very impersonal. Such a style tends to put distance between the text and its readers, rather than engaging them so that they want to read on.

Tip 7: Present the ECA's conclusions as definitively as possible

One way in which this impersonal style manifests itself is to attribute opinions – particularly critical opinions – to unidentified third parties: *It could be argued that, some have said; according to some critics; it is said* etc. (see also the box below). Formulations of this sort immediately prompt the reader to ask: who is making these allegations?³ Do the allegations have any validity? What does the Court of Auditors think?

A related problem is the tendency that some writers have to avoid providing definitive statements. So we see, for example, phrases like: *it appears that, it seems that, may have*. Writers should avoid using such qualifying phrases.

Readers of ECA reports look to the Court of Auditors to have sufficient evidence to come to robust, well-supported conclusions. The ECA reports should confirm that this is the case. However, sentences based on formulations such as *it seems that* undermine the positive impression that the ECA wish to give: the reader may wonder why it is that, having devoted considerable time and resources to an audit, the Court is unable to come to a definitive conclusion.

There may be occasions when we have completed all the audit work that we could reasonably have done, but the evidence remains incomplete. In these circumstances, if we choose to make a judgement, we should be open and explicit in doing so: "on the basis of the limited evidence available, the Court of Auditors judged that it was likely that x was the case."

Over-use of the passive voice is a common problem:

Passive: *the ball was kicked (by the boy)*

Active: *the boy kicked the ball.*

Tip 8: Prefer the active to the passive

Using the passive has two unwelcome consequences. First, it takes energy away from what is said. All other things being equal, using the active voice tends to have more impact than the passive. Martin Luther King did not say: "a dream was had by me".

Secondly, using the passive voice gives the writer the option of not making clear who is responsible for the action (the ball was kicked – by whom?). Often this is a crucial piece of information, particularly important for the subjects the Court writes about, where there may be a number of parties involved: e.g. the Commission, the member state, national and regional agencies, beneficiaries. If the identity of the agent is not clear, readers of the report not familiar with the mechanics of the European Union budget may not understand which organisation is under the spotlight.

There are infrequent occasions when using the passive might be preferable – when the receiver of the action is more interesting or important than the agent. Examples from the Commission's *Fight the Fog* advice are: *All Commission staff are encouraged to write clearly*; and *One of the most controversial members of the European Parliament has been interviewed by press.*

³ If the unidentified party is an auditee – the Commission, or Member State – we should say so, of course.

Tip 9: Use Word's readability statistics

The **Microsoft Word** readability statistics, explained in Appendix 1, measure the proportion of passive sentences in a text.

Tip 10: Avoid “nominalising” verbs

Turning verbs into nouns ('nominalising') tends to reduce the clarity and impact of the text, as verbs have more energy than nouns. Some examples:

- The Commission has no expectation [nominalisation] that it will meet the deadline is much better as: the Commission does not expect to meet the deadline
- There is a need for further study of this programme, is better as the Commission [or whoever] must study this programme further.
- The discussion concerned a change in grant regulations is better as the Member States discussed a change in grant regulations.

Tip 11: Keep it short and simple (KISS)

Je n'ai fait celle-ci plus longue que parce que je n'ai pas eu le loisir de la faire plus courte, as Blaise Pascal (a [French mathematician](#) and [physicist](#)) put it.

The advantages of brevity are obvious. People are more likely to read and understand what you have written if documents, sentences and words are shorter rather than longer. Translators will thank you, too.

Tip 12: Do not write too many long sentences

Too many long sentences are hard work for the reader and are often not necessary. Keep to one main idea per sentence and, when reviewing what you have written (since this is an area where rigorous self-review can be very useful), do not be afraid to split sentences up.

Tip 13: Never use a long word where a short will do

It is sometimes tempting to use longer or 'more sophisticated' words in the mistaken belief that this will add elegance to what one is writing. But simple language is the best way to get your message across. Compare *vertically-challenged* for *short*; *enhanced interrogation techniques* for *torture*; *collateral damage* for *civilian deaths*; *exsanguinate* for *bleed to death*; *rodent operative* for *rat-catcher*. The table below gives some examples of alternative, shorter words.

approximate	<i>about, near</i>	operational	<i>active, working</i>
beneficial	<i>good, useful, helpful</i>	possibility	<i>chance, hope</i>
consequently	<i>so, therefore</i>	principal	<i>main, chief</i>
consideration	<i>review, thought</i>	prioritise	<i>rank, order, list</i>
component	<i>part, piece</i>	represent	<i>show, stand for</i>
demonstrate	<i>show, describe</i>	requirements	<i>needs, wants</i>
examine	<i>test, study</i>	remunerate	<i>reward, pay, award</i>
expend	<i>spend, pay</i>	transitory	<i>brief, passing</i>
integrate	<i>combine, unite</i>	substantial	<i>large, major, big</i>
interface	<i>join, meet</i>	termination	<i>end, finish</i>
negative	<i>bad, harmful, wrong</i>		

Tip 14: Use fewer words

Some writers seem to avoid expressing things simply, and like to add unnecessary words to sentences – almost as a comfort blanket. These extra words only get in the way of understanding and interest.

The best way to be boring is to leave nothing out, Voltaire.

Some words are simply redundant – those underlined below:

Return back; my personal opinion; combine together; advance planning; end result; final outcome; desirable benefits; large in size; future projection.

Tip 15: Limit the use of jargon

The Court of Auditors reports might potentially contain many different types of jargon, or technical language, such as terms from accounting (*commitments*), economics (*deadweight*), and the world of the EU institutions (*comitology*⁴). In addition, the subject matter audited generally has its own range of jargon, with which we as auditors soon become comfortable. Unfamiliar technical terms in reports can be very off-putting for those not familiar with them. We should therefore minimise the use of jargon in reports, or at least make sure that it is fully explained.

If possible, avoid using jargon in the first place. For example, we can write *EU law* rather than *acquis communautaire*. However, it is often the case that it is difficult to avoid using jargon – perhaps because it would take many words to explain what can be neatly encapsulated in one. In these circumstances, the first time you use the jargon, you can help the reader by explaining what it is you mean: “*comitology*” – *the procedure under which the Commission consults committees or experts when applying legislation*. Thereafter, you can use the word *comitology*, without quotation marks.

Tip 16: Limit the use of abbreviations

DG and REGIO, of course, are examples of abbreviations. Abbreviations and acronyms⁵ are also a form of jargon, and can be equally off-putting for the non-expert reader. The Commission’s guidance on *How to write clearly* puts it nicely: ERDF + EAGGF + CAP = ZZZ.

However, abbreviations can help to keep texts shorter: frequent references to the European Regional Development Fund, rather than the ERDF, would be tiresome for most readers and would clog up the text. The best way to handle such abbreviations is to write them out in full the first time they are used, with the abbreviated form following in brackets: *the European Regional Development Fund (ERDF)*; or *the European Medicines Agency (the Agency)*. There is no need to use an abbreviation if the term in question only occurs once or twice; in these instances it is better to use the full form.

Glossaries, or lists of abbreviations, can help the reader. But they should be used in addition to the practice of defining terms within the main text, as readers should not need to flick backwards and forwards within a document to understand what is going on.

⁴ The ECA publication “a brief list of misused English terms in EU publication” tells us that, there are 1,253 instances of the word ‘comitology’ in EUR-Lex (situation in May 2013). However, not only does the word not exist outside the EU institutions, but it is formed from a misspelt stem (committee has two ‘m’s and two ‘t’s) and a suffix that means something quite different (-ology/-logy means ‘the science of’ or ‘the study of’). It is therefore highly unlikely that an outsider would be able to deduce its meaning, even in context. The official term is ‘committee procedure’.

⁵ Acronyms are generally taken to be abbreviations that form words, such as NATO or radar.

SECTION 4: RECOMMENDATIONS

Making recommendations is an essential part of what the European Court of Auditors does. They can take various forms. Sometimes an audit will suggest that a policy has been set up with unclear objectives or in an inefficient or ineffective way. In such circumstances, the ECA may wish to recommend that the Commission, as initiator of draft legislation, or the Council and Parliament, as the EU's legislative bodies, reconsider the policy concerned and/or the arrangements for its implementation.

Most recommendations in Court of Auditors reports, however, focus on suggested detailed changes to existing practices. The list of criteria below may help in drawing up such recommendations.

For individual recommendations:

- i. Is the recommendation sufficiently **specific** so that the recipients can understand what they should do? *Does the recommendation make clear who needs to do what and, where appropriate, how, when and where?* (see also the box below).
- ii. Can it be **monitored**? *Will it be easy to assess whether the recommendation has been implemented or not?*
- iii. Is the **rationale** clear? *Is the recommendation evidently a logical development of the conclusions of the audit?*
- iv. Is it **useful**? *Can it be expected to lead to demonstrable improvements in economy, efficiency or effectiveness?*
- v. Is it **feasible**? *Is it possible to implement within resource, technological and legal constraints?*
- vi. Is the recommendation **clear and succinctly expressed**? *Is it comprehensible from reading just the Conclusions and Recommendations section?*
- vii. Is it **important** enough to mention?

For whole sets of recommendations:

- i. Do the recommendations taken as a whole **fit** with the audit and do it justice?

Discussion with the auditee, with these criteria in mind, should help in drawing up robust and convincing recommendations – as well as reducing the risk that your recommendations are rejected.

Recommendations phrased around the verbs *ensure*, *continue* and *consider*, by their nature, tend to be weak and are unlikely to meet the criteria set out above. They are best avoided. For example:

- *the Commission should **ensure** that something is done.* Ensure-style recommendations fall foul of point 1 on the checklist above: they will probably not be specific enough about who needs to do what. They are sometimes used as a way of encouraging the Commission to be tougher with Member States. Wherever possible, we should try and be specific. For example, sometimes the part of the recommendation containing the “ensure” phrase can be dropped, as in recommendations like: “the Commission should ensure that it conducts a needs analysis before formulating plans”.
- *the Commission should **continue** doing something.* Recommendations that somebody should continue doing what they are already doing add little value (unless we have good reason to believe that the good practice might otherwise cease). If we want to give an organisation credit for taking action, there are plenty of ways of doing so in the text; we do not need to recommend that they continue with it.
- *the Commission should **consider** doing something.* For consider-type recommendations, a reader might reasonably ask why the Court of Auditors, having spent many months examining an issue in detail, is unable to decide for itself whether the Commission should do something or not. Using “consider” in a recommendation like this implies that we have not been able to conclude on the issue ourselves. A valid exception to this principle is when the Court's recommendation touches on the legislative process of the EU, which is outside our scope; unlike the

Tip 17: Be wary of ensure and continue and consider recommendations

Commission, we do not have the power of legislative initiative. In this context, *the Commission should consider recasting the design of the agri-environment scheme so as to strengthen its environmental impact* is an appropriate Court recommendation. *The Commission should propose the following substantive changes to the agri-environment scheme* is not.

SECTION 5: NON-TEXTUAL MATERIAL

Well-designed tables, graphs and other non-numeric graphics (e.g. flow charts, organisation charts, maps and photographs) enhance the clarity and readability of published reports. These non-textual, visual presentations can make it easier for the reader to understand essential information, especially numeric information. They can also help to give a more professional image of the publication and of the Court of Auditors.

Modern technology offers many possibilities to produce non-textual information quickly and accurately. It may be tempting to use technology to try to reproduce what professional publications do. However, the ECA over-riding concern is to produce reports that are clear and accessible to readers, free from unnecessary clutter and which present a professional image of the institution. This section provides guidance on how to prepare effective tables, graphs and other non-numeric information for inclusion in reports.

The following paragraphs set out matters of a general principle to be aware of.

Be familiar with, and understand your data. Know your purpose – be aware of the explicit point you are trying to make before you start designing a table, graph, chart or other illustration.

Design with the readers in mind. What data and information will help them understand the evidence or arguments?

Keep design simple. Allow the reader to see the numbers, trends and relationships of the data by minimising embellishments on tables and graphs.

- Organise the display or illustration so that the point is obvious. Avoid too much data, superfluous decoration or special effects such as 3-dimensional graphics.
- Use the simplest style of charts and graphs available. Simple bar charts communicate more easily than component bar charts. Simple line graphs are more accessible than layered line graphs.
- Each chart or graph should have a unique, explicit purpose. Do not over-complicate matters by attempting to show two or more disparate sets of information.
- Do not depend on the use of colour for interpreting facts. Design your charts and graphs in Word and Excel using black, white and greyscale – colours may always be added afterwards when the document is prepared for publication.

Make titles and labels clear and concise. Ensure all graphics and illustrations are self-explanatory, so that the reader does not have to refer to the main text to understand them.

Smaller tables, charts and graphs are often more effective (see *The Economist*, *Financial Times* and *Le Monde* for good examples of how to use small graphs to good effect).

Numeric presentation – tables, charts and graphs⁶

Tables vs. graphs

Tables organise and condense information, particularly numerical data. They facilitate calculations and enable comparisons. There are two types of table:

- Reference tables – providing precise, comprehensive information. These tables are more likely to appear in the appendix of a report
- Demonstration tables – providing selected data to emphasise a particular message. They should be short, to the point and arranged to suit the message. They usually appear in the main body of a report.

Graphs and charts compare data. They are best used to show trends and relationships, such as changes over time, correlations, and frequency distributions. If your graph does not have a particular trend or relationship message to convey, it is generally better to present the data in a table.

⁶ Charts and graphs are sometimes used to mean the same thing. Charts are simple representation of data (pie charts or bar charts), and chart data could be presented in a table. Maps are also charts. Graphs are more mathematical, with reference to x-y axis, but there are exceptions.

More details on how to present tables and graphs are in Appendix 2.

Presenting numbers

These guidelines allow numbers to be interpreted accurately and quickly by readers:

- **Order and organise information meaningfully.** Order – in most cases lowest to highest, or vice versa – helps readers see the relationship between numbers. Only in those relatively rare cases where there is no obvious order should the protocol order for EU Member States be used. In a series of related tables, the order should be consistent.
- **Keep comparisons close.** Figures in columns are easier to compare than those in rows as numbers in columns are physically closer than in rows.
- **Add focus.** Averages give a point of comparison, helping the reader to see patterns and exceptions in the data. Totals provide helpful information when the overall figure is of interest, such as budgets or staff numbers. Percentages are useful for establishing proportion.
- **Round figures.** Rounding simplifies numbers and improves communication and recall of important figures. Two significant digits is usually enough – see below.

Rounding:

1 234 567 becomes	1 200 000
12 345 becomes	12 000
12.3 becomes	12
0.1234 becomes	0.12

The same principles apply to percentages. Note that if you round percentages, they may not sum to 100. If this is the case, you should add a note to your table explaining that “totals do not sum to 100% because of rounding”.

- **Provide a summary.** Always include an explanation with your table or graph to help the reader understand the data and connect it to your overall observation. Writing ‘Table x shows that there has been little change in the last ten years’ is more helpful than ‘please see Table x for outcomes’. Summarise the main point or message in your table.

Non-numeric graphics

Non-numeric graphics, such as organisation structures, photographs and maps structure information visually. They can be useful for illustrating relationships, processes and other associations.

- Take time to prepare the graphic. Discuss and collaborate with colleagues, test your graphics by asking others whether they understand them.
- Keep illustrations simple and free of clutter. Do not mix organisation and other flow charts – it is better to have two or three simpler illustrations covering discrete areas than an all-encompassing, complicated graphic.

Photographs and maps

Used well, photographs can help make our reports more attractive and interesting. They may assist in understanding the text, illustrate ideas and observations in the report, and can serve as a diagram if labelled with parts. On the other hand, poor quality photographs that add no value – other than to prove that the Court’s auditors were really there – only serve to detract from the quality of a report.

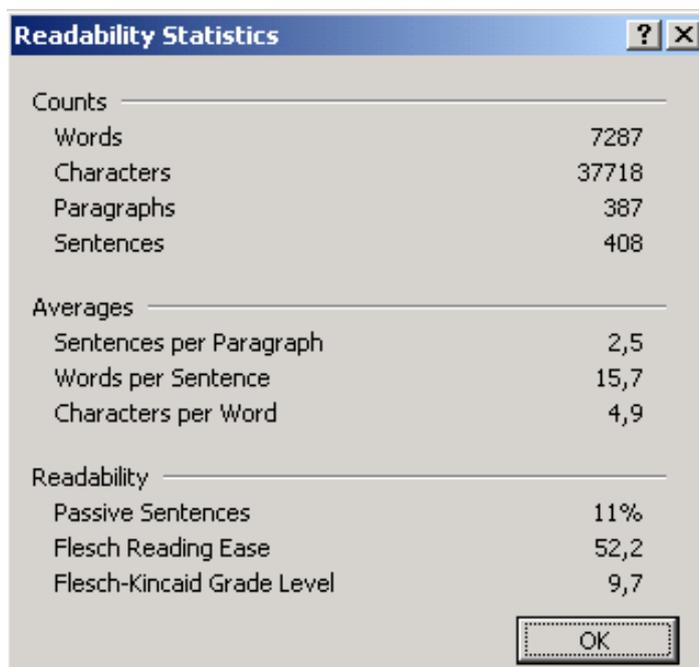
- Consider how you will obtain photos to use in your report at an early stage in the audit, maybe even before you carry out your on the spot visits.
- Make sure that there is nothing in your photos that might distract readers, such as obvious errors (e.g. misspelled signs), or unintended messages (especially those that may be found to be offensive).

- As with all such material, photographs and maps should have an appropriate caption and should be attributed.
- Maps should not be downloaded from outside sources, such as other publications or the internet. This is important not only for reasons of copyright but also to ensure accuracy, especially for politically sensitive regions.

APPENDIX 1

Using MS Word's Readability Statistics

MS Word can analyse your document for key statistics and return the results in the form below, the analysis for this guideline.



Counts	
Words	7287
Characters	37718
Paragraphs	387
Sentences	408
Averages	
Sentences per Paragraph	2,5
Words per Sentence	15,7
Characters per Word	4,9
Readability	
Passive Sentences	11%
Flesch Reading Ease	52,2
Flesch-Kincaid Grade Level	9,7

What do the statistics mean?

Of the ten metrics given, the first seven (*Words to Characters per Word*) are self-explanatory. The most important of these is *Words per Sentence* – see Tip 15. As a rule, aim for an average of no more than **20 words per sentence**. Some sentences will naturally be longer, but they should be balanced by shorter ones.

Under *Readability*, the metrics should be interpreted as follows.

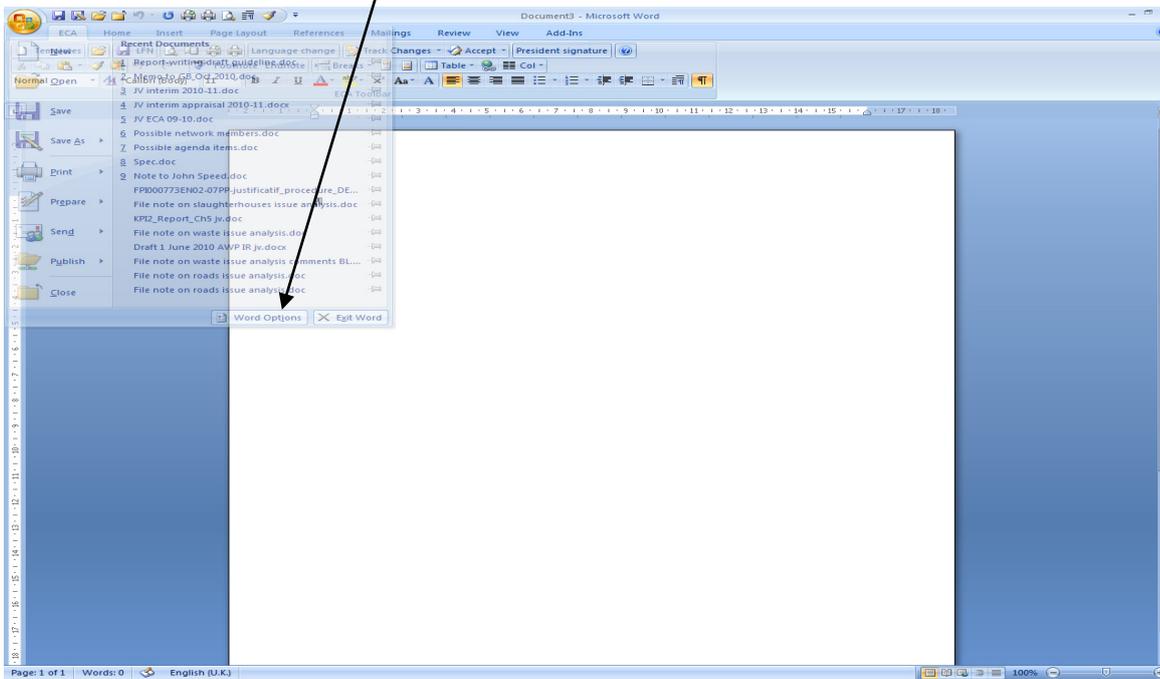
Passive Sentences measures the proportion of sentences framed in the passive voice (*the ball was kicked*, rather than the active *the boy kicked the ball*) – see Tip 10. We should aim for a proportion of no more than **20 per cent of passive sentences**.

Flesch Reading Ease and *Flesch-Kincaid Grade Level* both assess the readability of a document in terms of the average sentence length and the average number of syllables per word⁷. The Flesch Reading Ease test rates text on a 100-point scale; the higher the score, the easier it is to understand the text. Aim for a score of **at least 40**. The Flesch-Kincaid Grade Level rates text in line with USA schoolchildren's reading ability. So a score of 8.0 for a text means that a child in the 8th grade (i.e. those aged 13-14) could understand it.

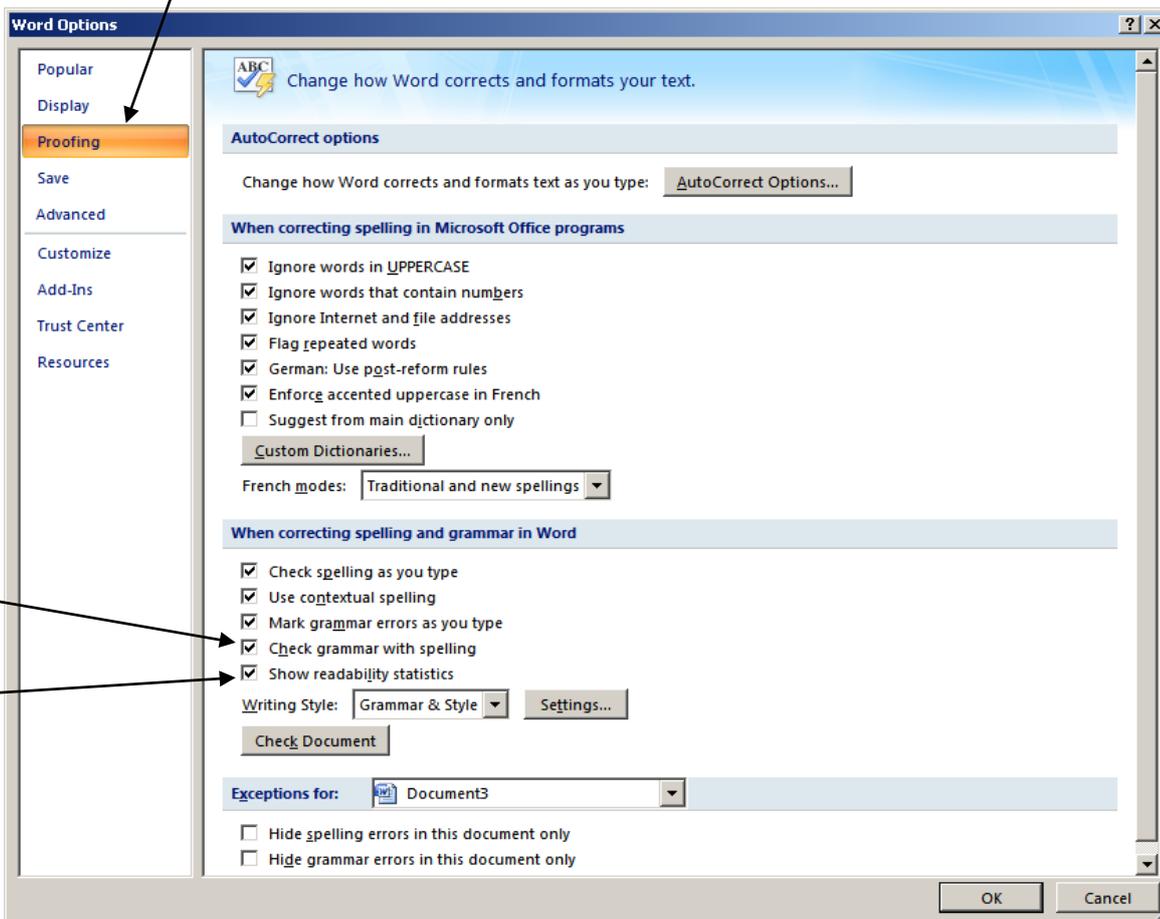
How do I generate the statistics?

In Word, click on the MS button in the top left hand corner of the screen, and select *Word Options*.

⁷ For interested readers, the formula for the Flesch Reading ease is $206.835 - (1.015 \cdot \text{ASL}) - (84.6 \cdot \text{ASW})$, where ASL is average sentence length and ASW is average number of syllables per word. For the Flesch-Kincaid Grade level, the formula is $(0.39 \cdot \text{ASL}) + (11.8 \cdot \text{ASW}) - 15.59$.



Select *proofing* from the task pane on the left hand side. Under *When correcting grammar in Word*, make sure that both *Check grammar with spelling*, and *Show readability statistics* are checked.



In the document you wish to analyse, first make sure that Word knows that the language is English: ctrl-a to highlight the whole document; then, select *Language change* and *English* (you should do this even if the document has been entirely drafted in English).

Next, under the Review tab click on *Spelling and Grammar* (also F7) and work your way through all the suggestions the programme offers. If the programme then prompts “do you want to continue checking the remainder of the document”, answer “no”. When the programme has finished its checks, the readability statistics window should appear.

Unfortunately, this function is neither the most user-friendly nor the most reliable. To confirm that the analysis is complete, check that the number of words in the analysed text is close to the total number of words in the text counted by Word, in the bottom left hand corner of your screen (the readability statistics function may omit headings, for example, from its analysis and so its word count is often lower).

APPENDIX 2

Tables, charts and graphs

Presenting tables

Here are some principles to bear in mind when designing tables (particularly demonstration tables) that should help you to emphasise and clarify the data within them.

- Use blank space, or faint gridlines, to define borders. Gridlines that are too prominent, particularly vertical ones, block the eye as it scans rows and columns.
- To aid publication, if possible leave additional space around words, to allow for translation.
- Align numbers to the right.
- The chart should not be too big, as that hinders the reader's ability to see comparisons. So use single spacing, and do not stretch tables artificially across a page.
- Limit bolding and shading.
- Make sure that titles and headings are clear and unambiguous. Include the source.

Here is an example of a well-designed table.

	Multi-column heading		Multi-column heading	
	heading	heading	heading	heading
Row head	xxx	xxx	xxx	xxx
Row head	xxx	xxx	xxx	xxx
Row head	xxx	xxx	xxx	xxx
Row head	xxx	xxx	xxx	xxx
Total	xxx	xxx	xxx	xxx
Row head	xxx	xxx	xxx	xxx
Row head	xxx	xxx	xxx	xxx
Row head	xxx	xxx	xxx	xxx
Total	xxx	xxx	xxx	xxx
<i>Source:</i> ABC reference, year.				
NB: Minimise footnotes.				

Presenting charts and graphs

There are many different types of graphs available. The box below indicates the most suitable, depending on the message the graph is designed to show. Further details are at the end of this Appendix.

Checklist for choosing the right graph					
For data showing	√ Useful	√√ Excellent			
	Recommended chart				
	Bar	Line	Pie	Histogram	Scattergram
Parts of a whole	√√		√		
Changes over time	√	√√			
Comparisons		√	√		
Frequency distribution				√	
Correlation					√

When designing your graph, bear in mind the following principles:

- Use charts and graphs to show an explicit message. If you are unsure of what the numbers mean (no trend or exception emerges), then re-consider the use of the chart or graph; perhaps a simple table will suffice?
- Graphics in reports should be self-explanatory, that is you should not need to read the report to understand them.
- Use the title of the graph to explain and reinforce the graph message.
- Avoid distortions such as 3-dimensional graphics and unusual formats.
- Avoid cluttered backgrounds, gridlines, multiple fonts, borders, bold and underlines. These distract from the graph's message.
- Avoid data labels (numbers on the graph). If readers need to know the numbers, give them a good table rather than a cluttered graph.
- Text should be large enough to read, and presented horizontally.
- Use shading rather than colour when designing charts in Word or Excel to distinguish between bars in a bar chart or slices in a pie chart .
- Avoid unfamiliar abbreviations.
- Place graphs next to the relevant text.

Spark lines and in-cell charts

Spark lines and in-cell charts are ways of combining tables and graphs to create extra effect. Spark lines, for example, are very small line graphs incorporated within a table to show trends.

The concept of spark lines and in-cell charts is relatively new, as is the technology to support their use. As with other graphics, they need to be used with care.

Using different types of graphs

Type	Strengths	Weaknesses	If you use them...
High impact graphs			
Bar	Easy to prepare, direct, vivid, easy to understand for all readers. Allows quick comparison of parts of a whole, and between large amounts of data.	Data may appear too obvious. Relationships between components are not obvious.	Arrange bars in size or logical order. Broaden bars for greater impact. Vertical and horizontal bar charts are equally easy to understand, but horizontal charts are easier to label, and readers expect money and time to be vertical. Paired bar charts allow for two way or grouped comparisons. Paired bars are more effective than stacked bars. Ensure grouping highlights your message.
Line	Direct, vivid, easy to understand, giving dynamic and clean representation.	Linking data by lines implies a connection, and bar graphs are better for non-continuous data.	Use for showing changes in a series, usually over time. Limit the chart to five lines - more lines become indecipherable. A minimum of three points is needed to show a pattern. Place labels on the lines, avoid key legends.
Pie	Visually appealing. Simple if there are fewer than five slices, best is between three to seven slices.	It is difficult to compare items in a circle. It is very difficult to compare data across two or more charts.	Limit the number of slices, ideally five. Arrange slices in order, largest to smallest, starting at 12 o'clock. Label slices individually, do not use a key legend. Include the overall volume or quantity in the title.
Other graphs			
Histogram	Measures frequency more successfully than a standard bar chart or table. They summarise vast amounts of data that fall into numeric ranges or categories.	Easily misinterpreted; Readers are likely to be unfamiliar with them. Simple design and succinct explanation is essential. Inadequate labelling may cause problems.	Make sure that readers know what the histogram represents by including the graph's message in the title. Ensure axis labels are clear and coherent. Choose between 5 and 20 categories - fewer than five give no discernible pattern, more than 20 is unwieldy. Histograms are drawn vertically rather than horizontally.
Scattergram	Measures scatter of occurrences, revealing relationships by displaying a number of points. Excellent in preliminary stages of audit work.	Readers may find them overwhelming. Users may not be familiar with them. Message is often lost. A good explanatory title is essential.	Readers may not know how to interpret, so include an explanation of its conclusion. Label scales carefully. Trend lines are optional.
More complex graphs: Use cautiously. Consider: what is the message? Does the chart convey that message? Is there a simpler method of getting that message across? It may be preferable to use several simple charts to convey the message than to use a single complicated graph.			
Component bar	Provides comparisons and cumulative totals.	Subject to distortion and misinterpretation. Cumulative data can be difficult to compare. Such graphs often fail to make an impact.	
100% stacked	Provides unit comparisons and totals.	Overloads readers with unimportant data. Rarely vivid or memorable. Subject to distortion and misinterpretation.	

Layered line	Tries to supply relative and total comparisons.	Volume comparisons are subject to distortion. Overloads readers with unimportant data.	
Back to back	Compares positive and negative data. Vivid if kept simple.	Comparative data are separate, leading to confusion and lessening impact.	
Multi-column bars	Shows breadth of data. Useful in preliminary stage for categorising items.	Most readers are unfamiliar with these. Categories may be unclear. Anonymous bars beg identifications. Titles must be crystal clear.	
Spider-graph	Shows performance and compares different aspects of performance.	Too complex for the average reader. Demands comparison of items in a circle. Labelling is crucial in helping readers to understand.	
Super-imposed graph	Allows comparison of two different sets of data.	Confusing to many readers. People often misread the scales and misinterpret the information. Ensure that comparisons are valid. Labels and titles require care.	