I. BACKGROUND

1. In autumn of 2008 an error was detected in the CPI regarding the shoe price index, which had serious consequences for customers and users. One problem was that the relevant statistics were used for important transfer calculations and that based on erroneous data the government had decided on an inflation rate that was too high. The communication of the error also received criticism and statistics Sweden was tasked by the central government to develop better routines for error management.

2. These routines or procedures are based on openness and the principle that errors shall be corrected as quickly as possible. There are also distinct routines for when and to whom information should be released. Measures to be taken are different based on the severity of the given error and the product that was affected. The guidelines have been used since 2009, but based on practical experience a number of changes have been under discussion. I want to emphasize that so far there are no final decisions on the new suggestions for routines I present here.

II. BUSY COMMUNICATORS IN MARCH

3. In March 2010 we had several different errors, one after another. Further, some other minor errors also arose in the published statistics, one instance of an early publication, and a couple of delays.

4. Reactions in the media were very negative; they focused on sloppiness and incompetence in IT management. Jokes and ridicule were evident and one would be justified in saying that the trademark of Statistics Sweden was tarnished. What must be stressed in a positive light, however, was that many people appreciated Statistics Sweden's openness with regard to the errors that were discovered and that we informed people in an entirely adequate manner.

5. Routines for error management had been properly tested and large segments functioned quite well. However in certain cases we came to rethink things. In some cases we realized that more detailed routines are necessary. The remainder of this paper deals with these changes and how we are going to act in the future.

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III. GUIDELINES FOR ERROR MANAGEMENT

6. Simply put, one can describe the error management at Statistics Sweden in the following way:

- Classify the error;
- Delete incorrect numbers and include information about the error;
- Inform when new numbers will be published;
- Inform internally;
- Publish new numbers;
- Analyse the error internally and draw conclusions.

7. An important question is when the corrected figures will be published. It has become clear that for substantial errors it is better to first inform the public about the discovery of an error and at the same time decide on a point in time when the new information can be published, instead of releasing the corrected figures whenever or soon as they are ready. Our point of departure has been that the publication should coincide with other publications issued at 09:30, but based on the severity of the error and how important the product is, reissuing can occur at other times as long as the time of there-release has been announced in advance.

8. The most important advantage is that user gets the information at the same time. Another advantage is that this routine provides an environment of calm in a process that otherwise would be characterized by anything but calm. This also means that the subject matter unit can concentrate on the essential issue, which is developing correct data and documentation, without generating new errors due to the stress factor. This also affords time for preparations regarding the publication itself and lessens the risk of misunderstanding. A clearly announced re-release date and time help customers and users understand what to expect and understand that everyone is being given the same opportunity to access the corrected figures at the same time. The disadvantage is, of course, that it will always be a few hours before the customers and users receive the new figures, but as we see things the advantages outweigh disadvantages in this more planned process. We have not received any reactions from users who disagree.

9. Another question that requires some thoughts is how to spread the information about the incorrect numbers. We have different strategies for different kinds of errors. For large errors in CPI, GDP and LFS statistics we push information in advance with our e-mail service for news. For less critical numbers we put the information on the web site.

10. In a situation when errors occur, there is a great need to have previously decided who will be responsible for what. We have a list (so far only a suggestion) for what different people in the organisation have to do.

IV. INTERNAL INFORMATION

11. We have also worked to improve the information strategy internally when errors occur. Our Director General issued several small explanatory articles on our Intranet when the media circus was most vivid. This resulted in many hits from the employees -- they were by far the most read articles this year. Grave errors will also be reported on the Intranet when they occur, so employees will get the information internally. Customer Service also gets information in order to be able to answer customers and users.
V. SUMMARY

12. The process of having good routines for handling corrections takes a long time. The suggestions I have been presenting today are still changing, but hopefully we will soon be able to revise the routines. Our principles are that corrections should be:
   - Open
   - Quick handling of corrections
   - Different handling depending on type of product and how serious the error is
   - The user perspective is central when deciding how serious the error is
   - Corrections should clearly be seen on the website

13. The difficult decisions to make is:
   - Fast vs at the same time
   - Erase incorrect data immediately vs insecurity among users
   - Information overload vs accused of hiding information
Who does what in the correction process

Error tzar
Holds the entire process together
Decide how the error is to be classed in concert with âEc, âAc, and VL.
Make decisions about when publishing is appropriate based on other publications
See to it that all of those affected receive the information about what they should do and be aware of.
See to it that spokesperson is appointed
Make a decision about deviating from the process
In concert with the affected Ac and VL for priority one products
In concert with the affected Ac for priority two and three products
Spread information through Inblick as soon as it is relevant.
Reach a decision about possible prioritization of personnel resources between publication and error manager

Person responsible for the media process
Develop a specific message
Developer Q&A in relation to the subject area unit
Media training in preparation for the spokesperson
Act like a goalie against the media
Consult the log file to see what is to be done.

Publishing specialist
Conduct all steps that have to do with
remove incorrect information
Notification
Publication
Correction
Marking up

Subject here units (unit head or party responsible for the product)
Communicate to the publication specialist or to the error tzar are as soon as an error has been detected
Appoint one person that shall coordinate at COM with regard to the error.
Describe what the error has to do with a brief text.
Describe where our website the incorrect figures are.
Decide when correct figures can be put into final publication.
Have other products under control that may be affected, notify the responsible parties of these.
Developed correct numerical figures.
Develop a much feared Q&A in cooperation COM’s chief press officer.
Communicate with special customers and users after publication.
Identify and communicate with commissioned service customers that are affected (in concert with COM/MAR

Subject matter department head
Take part in the decision process about the degree of severity of the error.
Take part in the decision process about the deviation from the process.
Notify important customers about priority one products.
Offer advanced notification for the Riksbank and National Institute of Economic Research about priority one p

Head of the Director General's Office
Offer advanced notification to the Ministry of Finance and
### Corrections - the error management matrix

<table>
<thead>
<tr>
<th></th>
<th>Grave errors</th>
<th>Minor errors</th>
<th>Cosmetic errors</th>
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</thead>
<tbody>
<tr>
<td><strong>Priority 1 products</strong></td>
<td>Remove incorrect information</td>
<td>Remove incorrect information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Notify 1) on the start page and the product page, 2) with a newsletter, 3) economic quick statistics, and 4) the most important customers.</td>
<td>Advance notification on the product page</td>
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<tr>
<td></td>
<td>Published at 09:30 on a predetermined day (or info at 09:30 if the飞船)</td>
<td>Published at 09:30 on the predetermined day</td>
<td>Correct in an ongoing and regular manner</td>
</tr>
<tr>
<td></td>
<td>Check figures in the new press release (and thus the newsletter), all forms of publication, and economic quick statistics.</td>
<td>Correct the figures in the existing press release and all forms of publication.</td>
<td></td>
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<tr>
<td></td>
<td>Mark corrections especially</td>
<td>Mark corrections especially</td>
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<td>Spread information internally (and Blake, customer service, 前)</td>
<td>Spread information internally (customer service)</td>
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<td></td>
<td>Communicate with the heavyweight, interested parties of Statistics Sweden, special customers and users as well as purchasers of commission services (by telephone or by e-mail).</td>
<td>Inform special customers and users and even purchasers of commission services (by telephone or by e-mail).</td>
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<tr>
<td><strong>Priority 2 products</strong></td>
<td>Remove incorrect information</td>
<td>Remove incorrect information</td>
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<tr>
<td></td>
<td>Notify on the start page and on the product page.</td>
<td>Advance notification on the product page</td>
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<tr>
<td></td>
<td>Published at 09:30 on the predetermined day</td>
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<tr>
<td><strong>Priority 3 products</strong></td>
<td>Remove incorrect information</td>
<td>Remove incorrect information</td>
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<td>Advance notification on the product page</td>
<td>Advance notification on the product page</td>
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<td>Correct in an ongoing and regular manner</td>
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<td></td>
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Notification means that information has been released about an error being discovered and when it will be corrected (plus not corrected data).

Corrections need to be specially marked in direct connection with the data being entered into footnotes or error lists to describe when the figure should be changed.

If you are as very grave or if the error is evaluated to be grave for other reasons so that the error tsar can classify the error.

Heavyweight, interested parties of Statistics Sweden are priority one customers. The Ministry of Finance, the Advisory Council, Riksbank, National Institute of Economic Research, and other product-specific and important customers.

For major errors and priority one products there is a special crisis management plan, which could also be used if too many errors happen in succession.