

The e-Line reporting platform

- an introduction -

Eribes login scherm - Microsoft Internet Explorer

Bestand Bewerken Beeld Favorieten Extra Help

Vorige Zoeken Mappen Favorieten

Adres: https://e-line.dnb.nl/eRibes/entrust/OverviewFrameset.jsp

Report General Time remaining to closing time of system: 08:17:51 Consulting report requirement

COREP_SA_BANK

- CA
- CRSA
- CRSAT
- CRTBSETT
- MKRSATDI
- MKRSAEQU
- MKRSAFX
- MKRSACOM
- MKRFIM
- MKRFIMDetails
- OPR

CREDIT, COUNTERPARTY CREDIT AND DELIVERY RISKS: STANDARDISED APPROACH TO CAPITAL REQUIREMENTS

Existing variant

IRB Exposure class: = : SA Exposure class: = Claims or contingent claims on administrative bodies and non-commercial undertakings

New variant

Amounts in thousands euros

	ORIGINAL EXPOSURE PRE CONVERSION FACTORS		VALUE ADJUSTMENTS AND PROVISIONS ASSOCIATED WITH THE ORIGINAL EXPOSURE	EXPOSURE NET OF VALUE ADJUSTMENTS AND PROVISIONS	CREDIT RISK MITIGATION (CRM) TECHNIQUES WITH UNFUNDED CREDIT PROTECTION: ADJUSTED VALUES (Ga)		
	OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK				GUARANTEES	CREDIT DERIVATIVES	FUNDED FINANCIAL COLLATERAL SIMPLE
	01	02			03	04=01+03	05
1 TOTAL EXPOSURES	0	0	0	0	0	0	0
BREAKDOWN OF TOTAL EXPOSURES BY EXPOSURE TYPES:							
1.01 On balance sheet items	0		0	0	0	0	0
1.02 Off balance sheet items	0		0	0	0	0	0
1.03 Securities Financing Transactions & Long Settlement Transactions		0	0	0	0	0	0
1.04 Derivatives	0		0	0	0	0	0
1.05 From Contractual Cross Product Netting	0		0	0	0	0	0
BREAKDOWN OF TOTAL EXPOSURES BY RISK WEIGHTS:							
1.10 0%	0		0	0	0	0	0
1.11 10%	0		0	0	0	0	0
1.12 20%	0		0	0	0	0	0
<input type="button" value="SAVE"/> <input type="button" value="NIL"/> <input type="button" value="CHECK"/> <input type="button" value="IMPORT"/> <input type="button" value="PRINT FORM"/> <input type="button" value="EXCEL"/> <input type="button" value="BACK"/>							
1.14 50%	0		0	0	0	0	0
1.14.1 of which: past due (a)	0		0	0	0	0	0

Gereed Local intranet

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Introduction

Since the year 2000, De Nederlandsche Bank (DNB) has been engaged in developing its Internet reporting system e-Line. From the very start, the e-Line system has been developed with flexibility as the keyword in mind. The reason for the emphasis on flexibility was that DNB faced major changes in reporting models. First of all there were new models for collecting balance of payment data, based on direct reporting. At a slightly longer distance there were the reporting models for Basel II coming up, together with new supervisory reports to be submitted by pension funds and insurance companies.

As a result the e-Line system became a generic reporting platform which DNB believes is also suitable for other data-collecting institutions.

As of January 1st 2007, the Eurosystem consists of 27 national central banks, some of them also acting as supervisors, are all faced with the same generic reporting process. Because a situation where 27 supervisors build their own systems to support more or less the same process would not seem to be very efficient, DNB expects supervisors to be interested in sharing each other's systems in partnerships. For this reason DNB has decided to investigate whether other NCB's/supervisors are interested in cooperation regarding the sharing of the e-Line system.

This document presents an overview of the e-Line system. Its purpose is to give possible future partners an introduction to e-Line and its potential benefits. The document concludes with a description of how e-Line is offered, together with several kinds of partnerships DNB is willing to enter into.

The chain of reporting

Looked at from an abstract level, the reporting process – any reporting process – can be divided into five separate steps. DNB calls this process the chain of reporting. In the figure below the generic process is visualized.

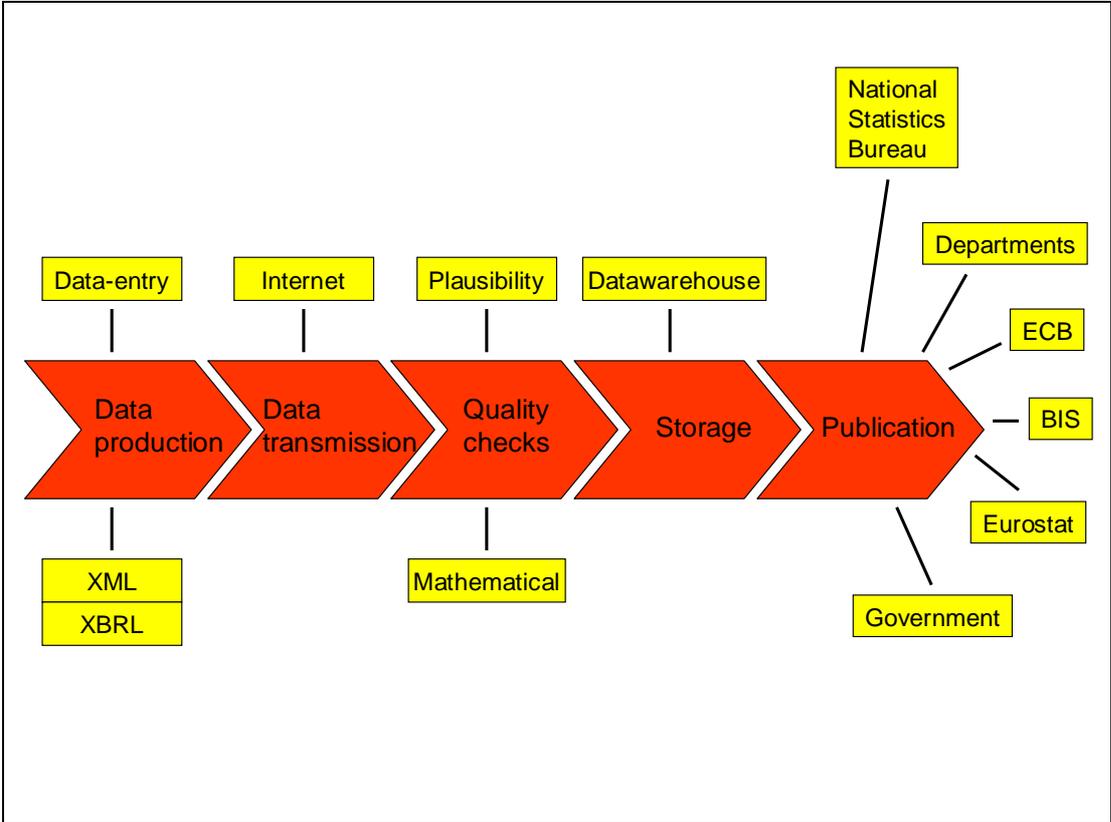


Figure 1: The generic chain of reporting

The process starts with the gathering of data and filling out of reports by reporting agents. In most cases, forms are completed either by hand, or by exporting data from an administrative system and importing them into an electronic form.

After a basic validation check, the report is sent to the collecting party, e.g. a supervisor or statistical agency, over secured internet connections. After the report has been received by the supervisor, more sophisticated quality checks can be performed such as plausibility checks and trend analyses.

The next step in the process is to store the data in a way that facilitates their dissemination. Data warehouses or metadata oriented databases are a common good practice. The final step is dissemination or publication to several internal and external parties.

The e-Line system is able to cover approximately half of the steps in the chain of reporting:

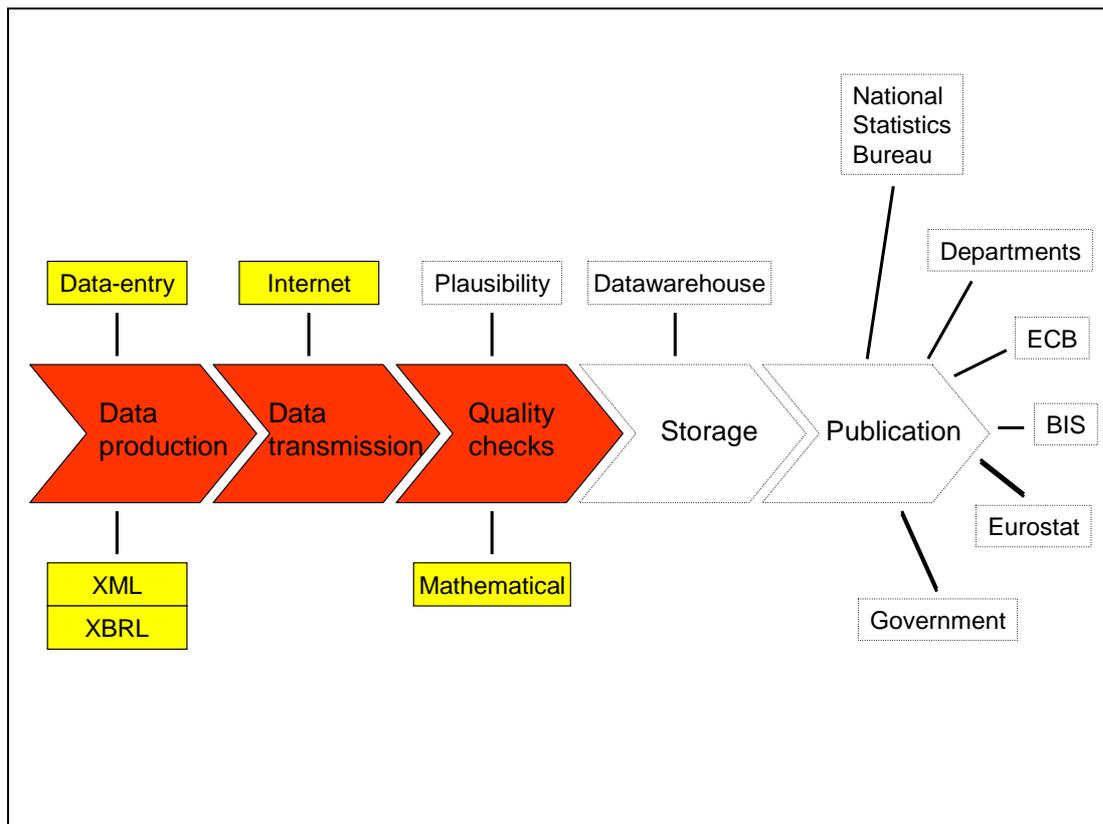


Figure 2: How e-Line fits in the generic chain of reporting

Overview of the e-Line system

Let's start with a high-level overview of e-Line. First of all, it is an Internet reporting portal. Reporting agents in the Netherlands all use the same website to start reporting. There is no difference whether the reports are for statistical, monetary or supervisory purposes, nor is there any difference whether the reporting agents are non-financial entities, banks, pension funds, investment companies or insurance companies. They all share the same access point.

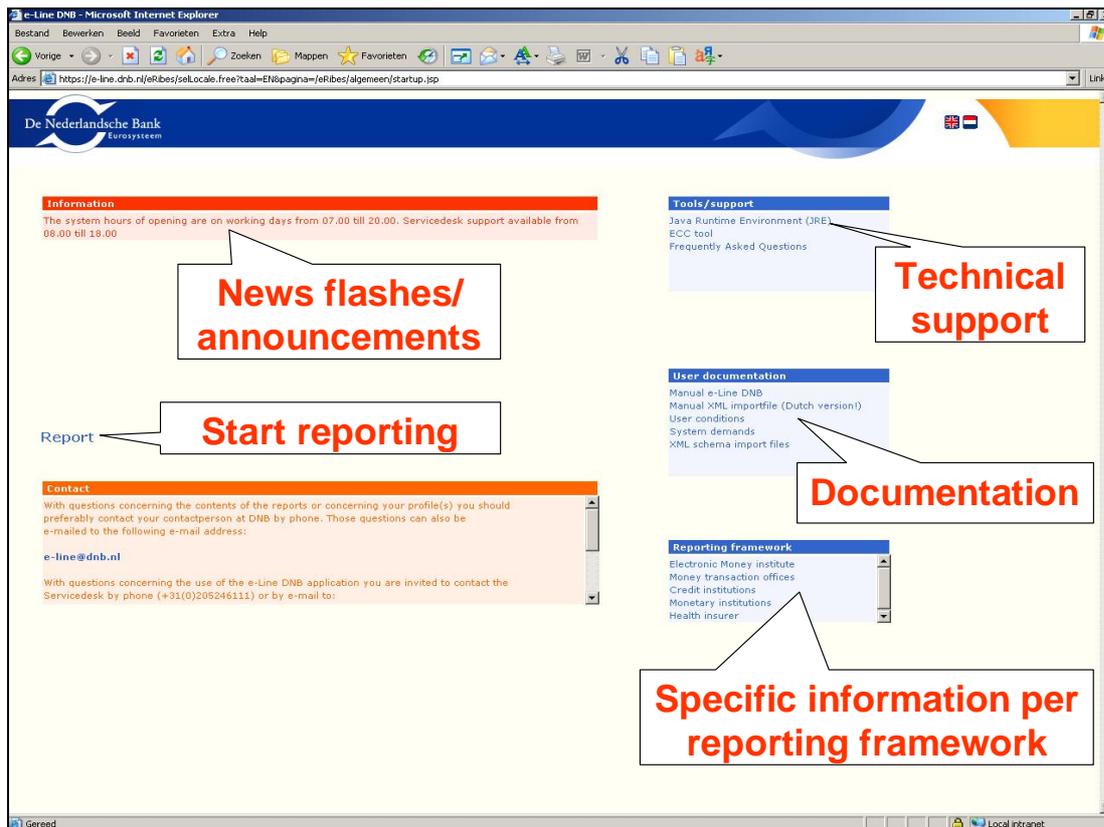


Figure 3: an example of the e-Line portal page of De Nederlandsche Bank

e-Line is what we call a reporting platform. The platform supports a wide range of different reporting models and functionalities within reports. As an example, the usual numerical models such as Basel II COREP and FINREP are available, but text-oriented questionnaires and surveys are also possible, together with support for multidimensionality, dynamic tables containing an indefinite number of rows and for interactive forms that respond to answers given.

For reporting specialists at the supervisor's site, functions are available to monitor the progress of submitted reports on an individual level, and to assess the original reports sent in. In response to the internationalization of the reporting population, moreover, e-Line supports multiple languages.

The figure below presents an overview of all the elements of the e-Line system.

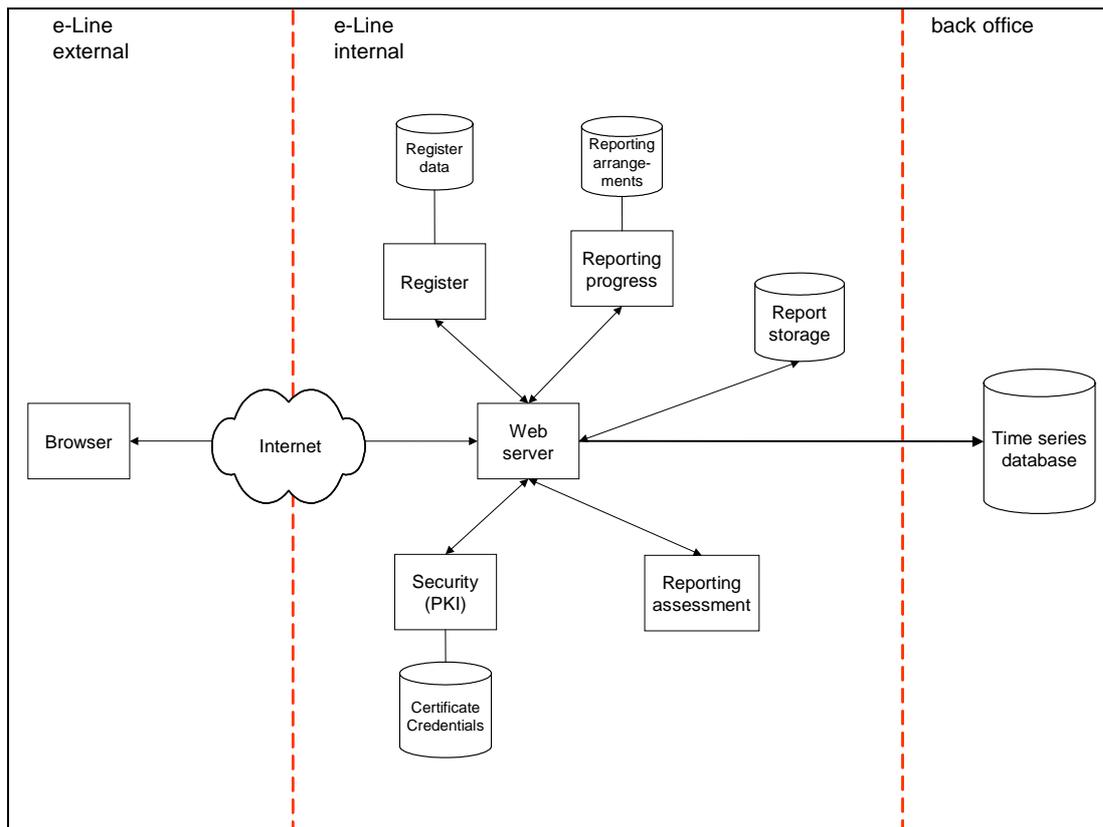


Figure 4: Overview of all elements of the e-Line system

As already briefly mentioned, e-Line has a module for external reporting agents (shown on the left of the picture) and another module for internal reporting specialists (NCB/supervisor) and system administrators (shown in the middle of the picture). The internal part of e-Line breaks down into several different functions. The various components of the system are presented as rectangles.

e-Line for external reporters

Although e-Line has been developed according to a so-called thin client architecture based on html pages, the system presents itself to the reporting agent as an integrated application. The central element in the application is the listing of all reports that an individual reporter is required to submit, the reporting requirements overview. This overview appears after the reporter has logged in. Each line in the overview represents a report that must be submitted.

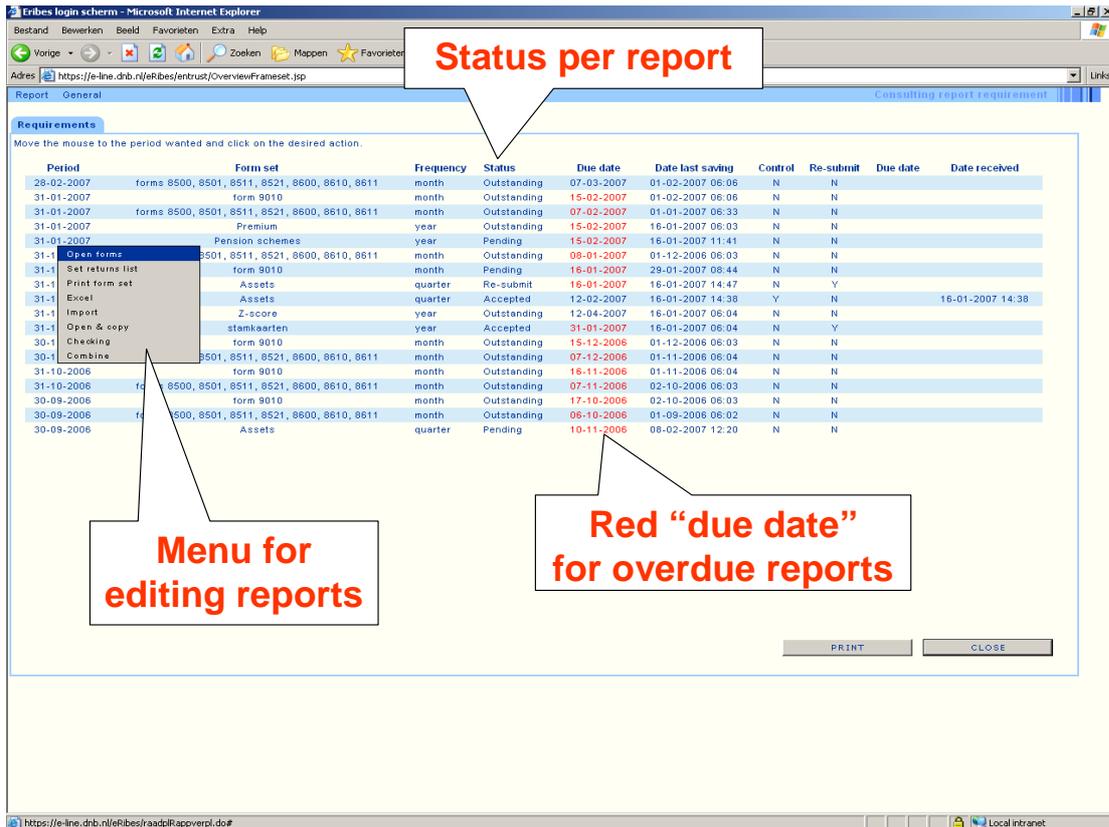


Figure 5: Overview of all reporting requirements

From the requirements overview a report can be selected for editing via a popup menu. Depending on the kind of information requested, the e-Line system supports a great variety of styles in defining reports. The next pictures show some examples of different reports.

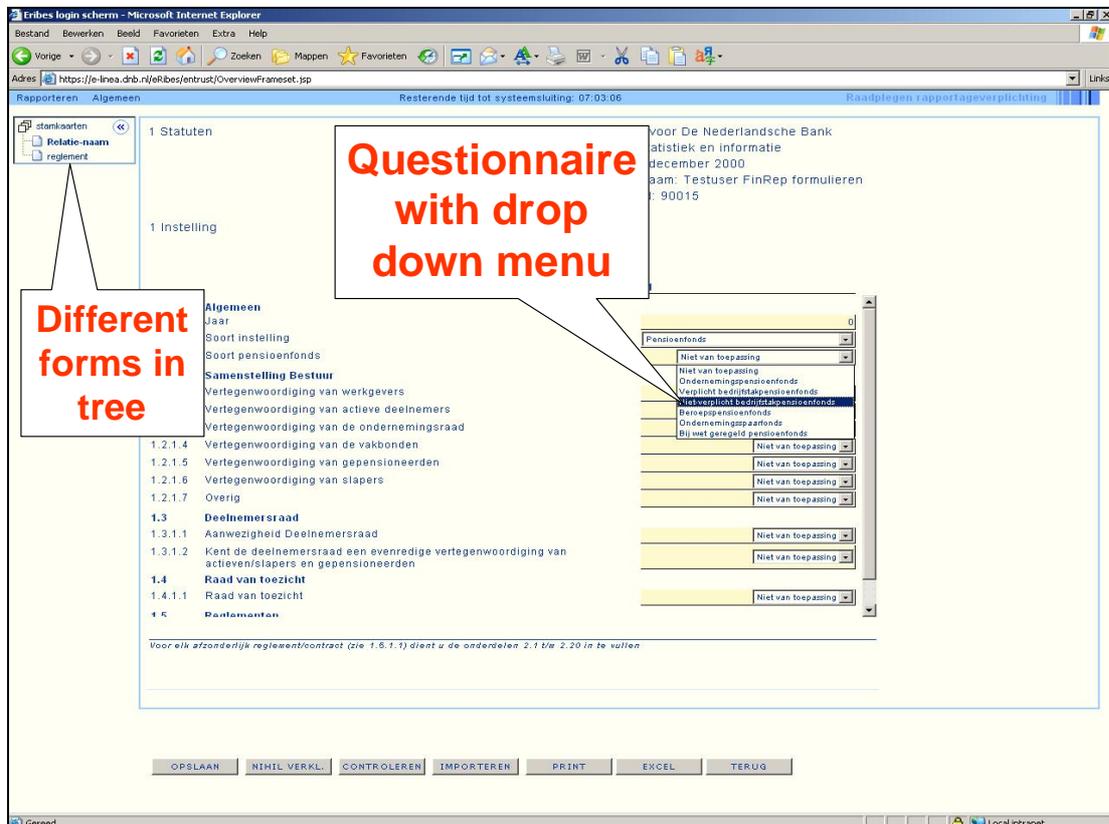


Figure 6: An example of a text-oriented questionnaire

Extensive layout possibilities

Dimensions

Use of colour

White spots

Menu

	ORIGINAL EXPOSURE PRE CONVERSION FACTORS	OF WHICH: ARISING FROM COUNTERPARTY CREDIT RISK	VALUE ADJUSTMENTS AND PROVISIONS ASSOCIATED WITH THE ORIGINAL EXPOSURE	EXPOSURE NET OF VALUE ADJUSTMENTS AND PROVISIONS	CREDIT RISK MITIGATION (CRM) TECHNIQUES WITH UNFUNDED CREDIT PROTECTION: ADJUSTED VALUES (Ga)		
					GUARANTEES	CREDIT DERIVATIVES	FUNDED FINANCIAL COLLATERAL SIMPLE!
	01	02	03	04=01+03	05	06	07
1. TOTAL EXPOSURES	0	0	0	0	0	0	0
BREAKDOWN OF TOTAL EXPOSURES BY EXPOSURE TYPES:							
1.01 On balance sheet items	0		0	0	0	0	0
1.02 Off balance sheet items	0		0	0	0	0	0
1.03 Securities Financing Transactions & Long Settlement Transactions	0	0	0	0	0	0	0
1.04 Derivatives	0	0	0	0	0	0	0
1.05 From Contractual Cross Product Netting	0	0	0	0	0	0	0
BREAKDOWN OF TOTAL EXPOSURES BY RISK WEIGHTS:							
1.10 0%	0		0	0	0	0	0
1.11 10%	0		0	0	0	0	0
1.12 20%	0		0	0	0	0	0
1.13 35%	0		0	0	0	0	0
1.14 50%	0	0	0	0	0	0	0
1.14.1 of which: past due (a)	0		0	0	0	0	0
1.14.2 without credit assessment by a nominated ECAI (a)	0		0	0	0	0	0
1.14.3 secured by commercial real estate(a)	0		0	0	0	0	0
1.16 100%	0	0	0	0	0	0	0
1.16.1 of which: past due (a)	0	0	0	0	0	0	0

Figure 7: an example of number-oriented table (COREP CRSA)

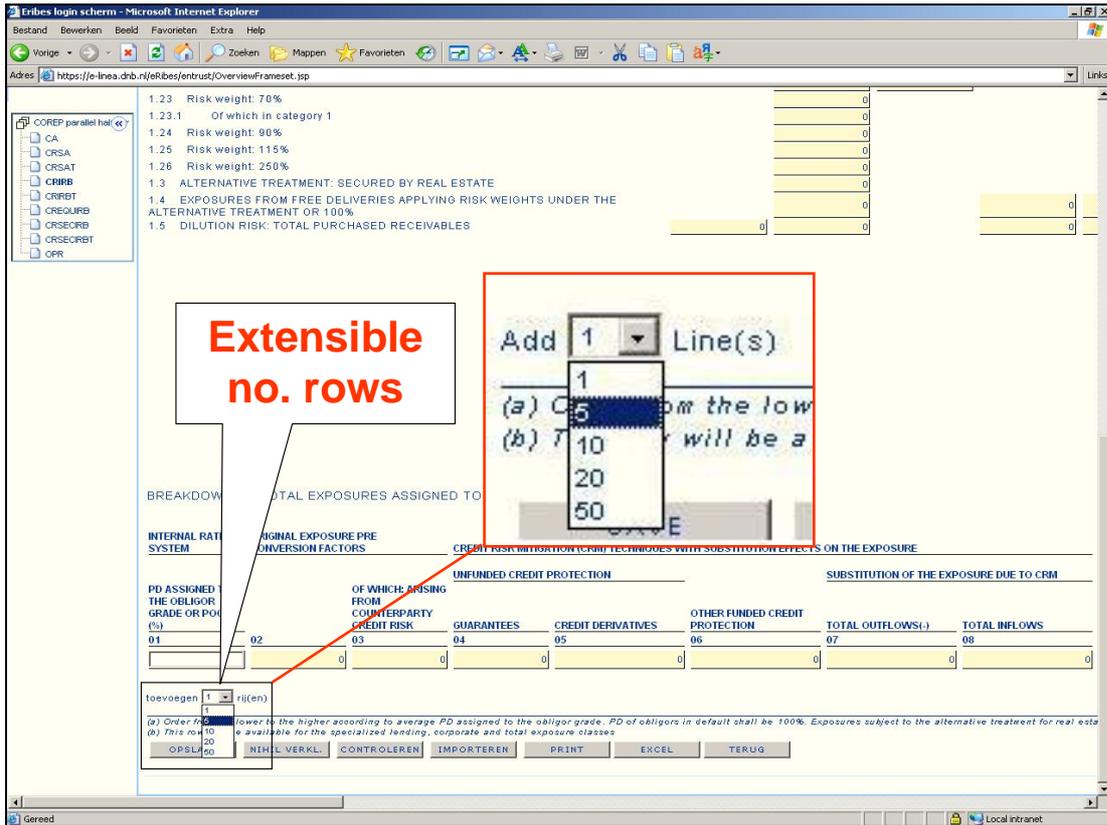


Figure 8: An example of a dynamic table with an indefinite number of rows (COREP CRIRB)

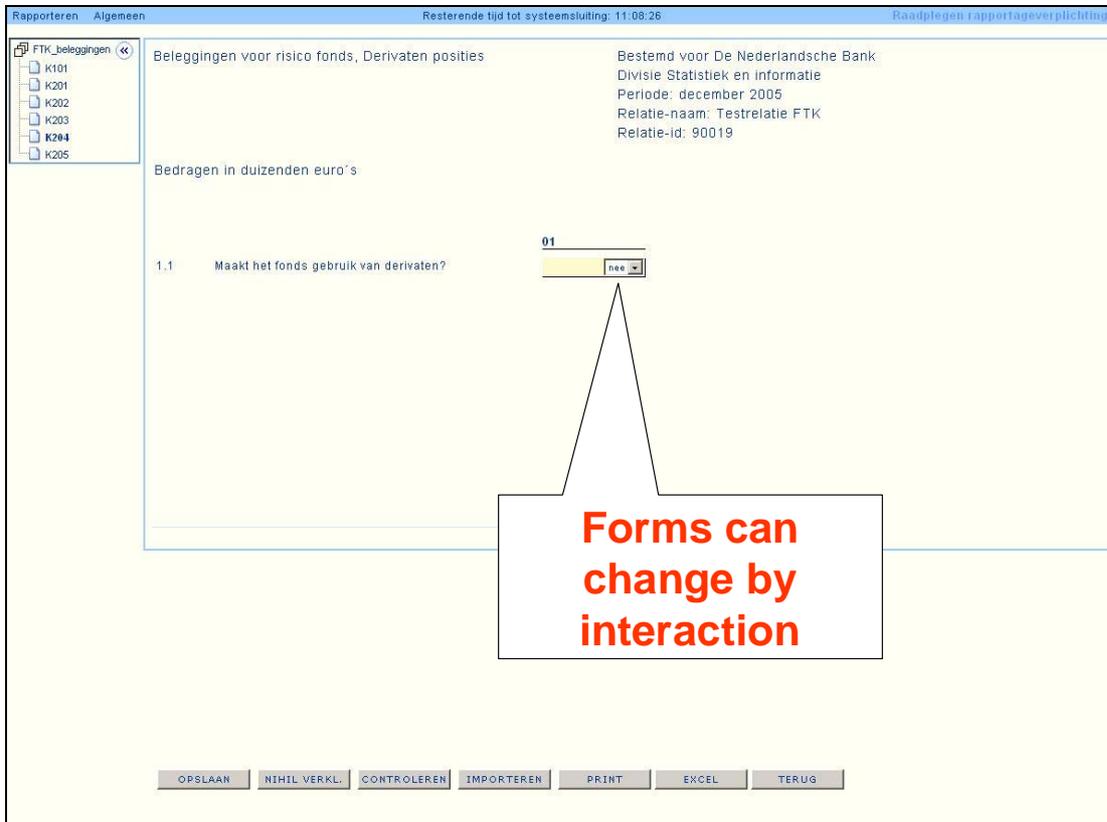


Figure 9a: An example of an interactive form that changes depending on answers given

Rapporteren Algemeen Resterende tijd tot systeemsluiting: 11:08:26 Raadplegen rapportageverplichting

FTK_beleggingen (←)

- K101
- K201
- K202
- K203
- K204**
- K205

Beleggingen voor risico fonds, Derivaten posities Bestemd voor De Nederlandsche Bank
Divisie Statistiek en informatie
Periode: december 2005
Relatie-naam: Testrelatie FTK
Relatie-id: 90019

Bedragen in duizenden euro's

1.1 Maakt het fonds gebruik van derivaten? 01

	Marktwaarde	Marktwaarde na schok	Notional
	01	02	03
Rentederivaten			
2.1 Termijncontracten, beurs-verhandeld	1	1	1
2.2 Termijncontracten, OTC	1	1	1
2.3 Swaps	1	1	1
2.4 Put opties, geschreven	1	1	1
2.5 Put opties, gekocht	1	1	1
2.6 Call opties, geschreven	1	1	1
2.7 Call opties, gekocht	1	1	1
2.8 Inflatiecontracten	1	1	1
2.9 Overige instrumenten	1	1	1
2.10 Totaal	9	9	9
Aandelencontracten			
3.1 Termijncontracten, beurs-verhandeld	1	1	1
3.2 Termijncontracten, OTC	1	1	1
OPSLAAN NIET VERKL. CONTROLLEREN IMPORTEREN PRINT EXCEL TERUG			
3.4 Put opties, gekocht	1	1	1
3.5 Call opties, geschreven	1	1	1

Figure 9b: Example of the same interactive form, here expanded by a follow-up table

Within the e-Line application, the reporter has a choice of filling out reports manually (data entry), importing files in XML, XBRL or legacy CSV format, or combining manual and file input. Reports do not have to be completed at once. Partly completed reports can be stored and edited further at a later time.

Before reports can be submitted, validation rules must be applied. Validation rules can be distinguished into warnings and errors. Errors must be solved before the reporter is able to submit the report, while warnings are accepted by the system. Besides validation rules, business rules or calculations are also supported. The e-Line application is able to perform nearly every mathematical rule/operation.

For their own purpose, reporters may export reports to Excel or PDF format. The latter serves as an intermediary format for the print function. Finally, multiple users can work on the same report at the same time in multi-user mode.

e-Line for internal reporting specialists and system administrators

The internal part of e-Line can be divided in several components which are connected to each other in a logical way:

- The Register
- The Reporting progress measurement module
- Storage of reports
- A Reporting assessment module
- The PKI security software for login handling, password administration and digital signatures
- The interface to the back-office system

Register

The Register is where the IDs of reporting agents are stored. e-Line has been designed to support several Registers. The Register for BOP reporting contains not only information about the reporting companies themselves, but also on subsidiaries, contacts, addresses, etc. The Register for supervisory purposes only holds the names of reporters and e-mail addresses. The e-mail addresses are used to have e-Line generate automatic mails to reporters. Currently this functionality is used only to send an import summary when a file is being imported into a report. But it is easy to imagine automatically generated e-mails for reporters who are late in sending in a report.

Reporting progress measurement

The Reporting progress measurement functions of e-Line allow NCB/supervisor staff to create customized reporting requirements per reporter, from their perspective visible as the reporting requirements overview, an example is shown in figure 5.

Reporting specialists are able to create several overviews on the reporting behaviour of external users. For example, views can be created and customized for reporters who are late in sending in their survey. These views can be created per report, for a specific group of reporters, for the portfolio of a reporting specialist and so on.

There are also possibilities to adjust the due date of a report per reporting agent. Finally, comments can be added together with reasons for the delay.

Storage of reports

All reports are stored in a database on the NCB/supervisor's premises. Different logical data stores are defined for "pending reports" and "surveys already submitted". Only the latter are available for reporting specialists on the supervisor's side. So reporting specialists do not have access to reports not yet submitted.

One of the advantages of centralized storage is that it facilitates reconciliation between two successive periods (Ending position of t0 should be equal to starting position of t1). Another advantage for reporters is that the burden of maintaining adequate backup and recovery procedures is taken off their hands.

Reporting assessment

With the reporting assessment module, reporting specialists of the NCB/supervisor may assess the content of reports sent in, in exactly the same layout as the one faced by the reporting agent. All reports sent in come with the "warnings reports" generated by the validation checks the reporter has performed. The "warnings report" might be a good starting point in assessing the report.

Reporting specialists can add comments to the reports, make internal copies of the report to correct data (this is a useful function when there is time pressure on the processing of the report by the NCB/supervisor) and enforce re-reporting by the reporter (which becomes visible as a new line in the reporting requirements overview). In the case of re-reporting, a very useful function is the updates and revision view, showing only the differences between a re-report and a report previous sent in. Finally, the status of a report can be changed from draft to authorized.

All reports, original reports, re-reports and NCB/supervisor copies are stored and available for audit trailing purposes.

PKI for login handling, password administration and digital signatures

In order to ensure the safety of the e-Line system, DNB has acquired a PKI (Public Key Infrastructure) from one of the world's leaders in security, Entrust. The PKI facilitates a first time login procedure, storage of passwords and login handling, workstation independency by storing certificates on a roaming profile server and placing digital signatures on reports sent in.

DNB currently only uses authentication based on user id and password, but a successful proof of concept based on strong authentication with a so called smart card has been performed.

Interface to the back office system

In the situation at DNB, e-Line has a connection to the back office system based on XML messages sent via a message queuing. In business terms, a message queue can be best compared to a mailbox for e-mails. A sending party (e-Line) can send an e-mail (XML message) to somebody else (the back office system), but the receiving party decides when the message will be opened (processed). In the process of sending the XML message to the back office system, a translation module is available to translate front office tag wise notation to back office relational database notation. This of course requires customized solutions depending on the partner's systems.

Types of collaboration

DNB expects that there will be a demand for two different types of cooperation:

1. A collaboration where the product or service is taken as it is and no influence on future developments is required.
2. A partnership involving shared ownership of e-Line. Partners decide together on future developments of e-Line.

Products offered by DNB

DNB offers e-Line in two different modes:

1. e-Line as a web service. In this situation the data collecting process is largely outsourced to DNB. e-Line is hosted on web servers in the DNB domain. Partners access e-Line over a secured connection. The secured connection is also used to forward directly all reports sent in by reporting agents. Separate data stores per partner will guarantee exclusive access to data.
2. e-Line as a product. The e-Line system will run on an infrastructure within the partner's computer domain. This may require some modest adaptations to the local infrastructure in the partner's computer domain, a topic to be discussed at a more technical level.

Included in both options are:

- All new updates of e-Line.
- Support in case of questions and problems, based on a service level agreement.

This may require some modest adaptations to the local infrastructure, to be discussed at a more technical level.

Other products and services offered

Apart from e-Line, DNB has other products and services on offer which are closely related to the e-Line system. These are:

1. Education
 - a. A one day course to learn e-Line from a reporter's perspective.
 - b. A two day course to learn e-Line from a NCB/supervisor reporting specialist's point of view.
 - c. A two day course for logical system administrators.
 - d. A five day course for XML developers to learn how to define reporting models in e-Line. On average it takes 10 to 20 hours to build a new report in e-Line, depending on the complexity of the form and on the number and complexity of validation and business rules.
2. Customization of the public e-Line website in the style and language of the partner.
3. Implementation of new reporting models in e-Line.
4. Software to connect e-Line to the partner's back office system.

Interested to learn more about e-Line?

If you are interested to learn more about e-Line, please do not hesitate to contact one of the following persons:

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More documentation about e-Line can be found on <https://e-line.dnb.nl> .