Jos van Splunder was there at the start of Electronic Reporting
‘Take responsibility’

Jan Gilissen about Electronic Reporting in Flanders
‘Less administration and safer’

Electronic Reporting: Frequently Asked Questions
Beste lezer

Inland navigation is continuously finding additional benefits of computing and digitisation. AIS, Inland Ecdis and other River Information Services: each represents further progress towards improved safety and ease of use.

Electronic Reporting is another step towards the ultimate goal: safer inland waterways with as little paperwork as possible and the most efficient administration possible. Safer, because skippers no longer need to leave their ship to obtain their navigation licence, and because the emergency services can reach the scene of an accident more quickly and directly thanks to Electronic Reporting. The objective is for a single report to be sufficient for any trip through Europe. This will make everything smoother and more efficient, because as a skipper you only have to make a single report for an entire trip. The Electronic Reporting data is automatically transmitted to all the necessary actors along the route. That means less administration on board, making less use of maritime radio-telephone and fax, and among other benefits provides for better lock planning.

The advantage compared to some other parts of RIS is that the software for Electronic Reporting is completely free. The Dutch government’s BICS programme, and its online variant, ERI-NET, have been developed in line with a European standard and are also distributed free of charge (outside the Netherlands also). The only costs are the modest internet or telephone charges for transmitting the report. And work is being done on this also, with hotspots for fast wireless internet access currently being installed along the major shipping routes in Flanders.

Electronic Reporting is already mandatory for most ships that transport containers on the Rhine. The expectation is that this requirement will quickly spread to other types of cargo and other countries. In Flanders there is currently no obligation – but ships are strongly encouraged to use the Electronic Reporting system. We are all getting better at it!

Promotion of Flanders Inland Navigation
www.binnenvaart.be
T 0032 11 23 06 06
Electronic Reporting in Flanders?
It has long been commonplace for ships to have to communicate their route to the government and pay shipping duties. Until now, this has all been done on paper: the skipper reports at the first lock or control post on the route, and deals with the administrative formalities on the spot.

Electronic Reporting ensures that the reporting can now take place over the internet. A certain amount of data can be sent to the waterways manager from the ship itself or from an office on land before the start of journey. An acknowledgement is sent back along with a shipping licence and a monthly invoice is issued for the shipping rights.

All locks, bridges and traffic posts along the route are automatically informed about the ship’s arrival. And should the ship cross the border, the foreign authorities are also notified (if they have set up facilities for Electronic Reporting).

The skipper therefore no longer needs leave the ship to communicate the route. It is sufficient to use the marine radio-telephone to communicate his Europe number or the name of the ship as he approaches the lock. The lock steward can look for other data in the Electronic Reporting system. And it is no longer necessary to check in again at the border: The electronic message travels with him.

What exactly is Electronic Reporting, and for whom is it suitable? An overview in questions and answers.
**Compulsory or not?**

Since 1 January 2010 it has been compulsory for most container ships to report electronically along the entire length of the Rhine to the traffic post in the area of travel. This requirement also applies to all navigable inland waterways in the Netherlands.

The Electronic Reporting requirement applies to skippers of ships and convoys:
- with more than 20 containers on board,
- who are transporting containers with dangerous substances, regardless of the number of containers.

**Electronic Reporting is not compulsory in Flanders or in most other countries, but Electronic Reporting is encouraged.**

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**What data must (and may) be included in the report?**

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<thead>
<tr>
<th>COMPULSORY DATA</th>
<th>OPTIONAL</th>
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<tr>
<td>Type of ship</td>
<td>Position and direction of voyage</td>
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<td>Name of ship</td>
<td>Route, waypoints</td>
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<td>Europe Number (ENI / OFS / IMO)</td>
<td>Displacement (at the request of the authorities)</td>
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<td>Capacity</td>
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<td>Unloading port</td>
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<td>Information on goods and dangerous substances (UN number, name, class, classification, packaging group and quantity)</td>
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<td>Dangerous goods level</td>
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<td>Number of containers</td>
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<td>Number of persons on board</td>
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<td>Type, length and width of torque link</td>
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<td>Length and width of vessel</td>
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<td>Load port</td>
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**How can you use Electronic Reporting?**

An electronic report must comply with the international standard ERINOT 1.2 (which stands for Electronic Reporting International Notification). This is a standard that is accepted and published by the European Commission.

There are various ways to send a message in the ERINOT format. The BICS system is the most common.

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**BICS.**

The BICS programme (Binnenvaart Informatie en Communicatie Systeem - inland shipping information and communication system) of the Dutch Ministry of Public Works can be obtained on a free CD-ROM. BICS can be used for reporting in all European inland waterways, up to the Black Sea. The programme is available in Dutch, German, French and English. This enables information to be exchanged smoothly between all countries.

Most shipping data is pre-programmed in the BICS system. The programme contains the names of all loading and unloading points in European countries with inland waterways, all kinds of cargo and the precise name and hazard level of all dangerous sub-
Like the navigation tools of Inland Ecdis and AIS, which were examined in previous magazine specials, the system for Electronic Reporting is part of the River Information Services (RIS). This is a set of IT services aimed at making the inland waterways more efficient and safer to run.

In accordance with the European RIS directive of 2005, more RIS standards were adopted in subsequent years by the European Commission and the Central Commission for navigating the Rhine. Standards have been published for Electronic Reporting and Tracking & Tracing for messages to skippers, and publication of Inland ECDIS is expected shortly. An international working group was also set up - Electronic Reporting International (ERI), that supervises an international standard for messages sent via Electronic Reporting.

There is also an internet version of BICS: ERINET. The advantage of this is that the skipper no longer needs to install any software on his own PC or laptop and is no longer dependent on access to a Windows operating system. All you have to do is surf to the site and input all the necessary data.

ERINET is not as well-developed as BICS. The internet application is for example less suitable for ships that transport containers, as ERINET does not yet work with stevedoring software.

Those who wish to use ERINET, can request ERINET registration through the ‘forms’ link on the BICS website or at the Bics helpdesk (see www.bics.nl, under Contact and addresses). The applicant will be given a login name and password, with which he can report electronically at https://www.erinet.eu.

**INFO**
E: info@bics.nl
T: +31 10 288 63 90 (BICS-helpdesk)
www.bics.nl
For skippers the system is first of all an administrative simplification. Voyage details need to be reported one time only and then accompany the ship across borders (unless the countries do not yet have an operational system for Electronic Reporting – see the table on p. 11). The skipper no longer needs to disembark at a lock or checkpoint to pick up his navigation licence and pay shipping rights. All shipping rights can be paid monthly by means of a single monthly invoice.

After completing Electronic Reporting at the start of their journey, skippers only need to announce the name of their ship or Europe Number by marine radio-telephone when they are approaching a reporting point. No sensitive commercial or personal information therefore needs to be communicated over the public marine radio-telephone network.

Re-sending voyage data is also easy. The Electronic Reporting software keeps an archive of previous trips. The data can be re-sent with the push of a button. The user can use this to keep a simple voyage and cargo journal, build up a company archive and prepare complete transport documentation.

Container ships can use the Electronic Reporting software to connect to stevedoring software published by external navigation software houses to prepare an optimal docking plan for the stability of the ship and for the order of unloading at the consecutive terminals where the ship will dock.

Ship-owners or charter companies can use the system to transmit data directly instead of going through the skipper on board. This enables them to group the administration of navigation licences and shipping rights for their fleet. Terminals can use the information received through BICS for improved terminal planning.

The waterway and harbour authorities can use Electronic Reporting for improved lock planning. But above all: the information that the skippers provide through Electronic Reporting comes in very handy when an incident occurs on the waterways. For certain ships in the target group (such as ships larger than 110 metres, hotel ships, convoys, ships transporting dangerous substances - see RPR art. 12.01), the authorities and emergency services can find out quickly whether there are dangerous cargoes and if so, what they contain, and how many people may be affected by an accident. This enables them to immediately take the correct measures to protect people and the environment.

A major benefit of Electronic Reporting is the much reduced likelihood of error in transmitting the information. Anyone who has to re-enter data, or decipher a poor quality fax, can always make a mistake. Because most of the data in the Electronic Reporting software is pre-programmed, the error rate falls dramatically.

Benefits

Like Inland Ecdis for example, the ‘GPS for inland waterways navigation’, Electronic Reporting is a new step towards more modern management of inland waterways travel. The system has numerous benefits, for both skippers and the government.
The Future

Electronic Reporting is currently fully functional on the Rhine and in some other regions. In most regions – including Flanders - test projects have now been completed and the system can be fully implemented.

Over the coming years, Electronic Reporting will be increasingly used on all European waterways. That is an important step towards the ultimate goal: the elimination of paper documents during transportation, or ‘paperless sailing’. All administration during a voyage will be handled electronically, with minimal duplication of data input.

Single window
Another important stage in this evolution is the ‘single window’ that Europe is imposing in all EU ports by 2015. Here also the intention is to arrive at a single streamlined system for all reporting formalities in European ports. This should ultimately result in information about ships in the ports area being more easily interchangeable with inland waterways. That is why it will also be compulsory for information about vessels on the inland waterways to be transmitted electronically by 2015. All underlying systems will be aligned so that a single report should be sufficient to communicate with all waterway authorities. Governments must ensure that their services are ready for this development.

Such efficiency gains are also required to continue monitoring safety on our inland waterways and in our harbours. With the expected increase in water-borne transport and ships continuing to get larger, there is a growing possibility of collisions. The more efficiently the trip is organised – including in terms of lock planning and the optimal use of the waterways – and the more accurate the available data in the event of an accident, the safer the inland waterways will be.

Keeping the inland waterways manageable
For these reasons and others, the expectation is that Electronic Reporting will be extended over time and increasingly become compulsory. In addition, more and more countries and regions will probably impose Electronic Reporting. Only by making such administrative simplifications will traffic on the European inland waterways continue to be manageable.
The very beginning of Electronic Reporting was 15 years’ ago in the Netherlands. Jos Van Splunder, senior adviser at Rijkswaterstaat Nederland, was there at the birth of the system and is now chairman of the European ERI expert group that monitors the ERI standard. ‘Electronic Reporting is above all about taking responsibility’, he says.

The core of Electronic Reporting was established with IVS90, the Information and Tracking System for Shipping (see box). ‘When IVS90 was developed, it was at the time of the first computers’, says Jos van Splunder. ‘We were then carefully beginning to sniff out its possibilities.’

It soon became clear that the enormous volume of data from the heavy traffic on the Rhine made far-reaching automation of information streams essential. ‘That is why the Dutch government decided to start a stimulation programme. And our BICS system for Electronic Reporting was born.’

Excelsior-Waldorf
The introduction of Electronic Reporting was not something that only came from above, says Jos Van Splunder. ‘The petrochemical industry also, especially in Germany, strongly emphasised that it considered that it had a social responsibility to improve safety on the inland waterways. That certainly added to the pressure to push things forward.’

An important trigger was the accident involving the containership the Excelsior in 2007: the largest accident of a container ship in 25 years, which made the Rhine around Cologne non-navigable for several days. ‘Only then was it decided to make it compulsory for container ships to report whether they had dangerous substances on board, as was already the case for tankers. And because that affected a lot of ships, it was decided to that this reporting should be done electronically.’

Since 2010 is Electronic Reporting has been compulsory along the whole of the Rhine for ships with more than 20 containers on board, and for all container ships transporting dangerous substances. Ships in other target groups, such as tankers and push-tow vessels are increasingly moving to Electronic Reporting. ‘That the system has its merits was recently demonstrated by the accident involving the sulphuric acid tanker Waldorf close to Mainz in March of this year. Thanks to Electronic Reporting, all the emergency services and the authorities were quickly provided with the correct information.’

Paperless sailing
Meanwhile, more and more countries have been offering the option to report electronically. A number of pilot projects have been completed this year alone. Almost all countries are using the BICS software. ‘The system is there, so it is easy to implement. It doesn’t always happen as fast as we would like, but the evolution to a single unified system for Electronic Reporting is clearly underway.’
The primary objective is always safety, but Electronic Reporting can also stimulate progress in other areas, says Jos Van Splunder. ‘The more countries that introduce the system, the greater the advantages. That brings us ever closer to the ideal of paperless sailing: a single electronic report at the start of the journey that is then automatically transmitted to all necessary services along the route. This is already happening in the countries that are ready for it. For example, the Netherlands exchanges data with Flanders and Germany.’

In the future, logistics planning will also benefit from Electronic Reporting. ‘Over time, we will certainly see two-way traffic. This will enable the waterways manager, for example, to report that there is a particular waiting time on a waterway along the planned route, and propose a faster alternative. Flanders and the Netherlands have recently launched a test project in this field.’

Single window
The next big challenge is the European requirement to set up a ‘single maritime window’ in major ports by 2015 to handle all administrative applications (see p. 7). ‘This will be yet another element of administration that takes place electronically and more simply. Over time we should be able to achieve more uniformity.’

That is why it is also to be expected and encouraged that compulsory Electronic Reporting will gradually be expanded. ‘We started very carefully with container ships. It is a logical step to make Electronic Reporting compulsory for other high priority ships on the Rhine: tankers, push-tow vessels, ocean-going vessels and passenger transport. And naturally we also encourage skippers to switch to Electronic Reporting at their own initiative. The benefits are undeniable!’

Systems are converging
At the start of the ‘90s, Germany introduced MIB (Melde- und Informationssystem Binnenschifffahrt – Reporting and Information System for Inland Shipping) which was taken up in France in Switzerland. The Netherlands set up IVS90 (Informatie- en Volgsysteem Scheepvaart – Information and Tracking System for Shipping). In the event of an accident, these systems ensured that the authorities were given the correct information and were therefore able to turn up with the right equipment.

Initially, the reports that were introduced by these systems were completed on paper. That resulted in a lot of extra work, as they ultimately had to be entered into a database. For this reason, the Netherlands developed the BICS application in 1996 through which the reports could also be made electronically.

BICS has in the meantime been adopted by the other countries along the Rhine. That was one of the reasons why it was necessary for IVS90 and MIB to be better aligned, as both systems had many differences. That has since taken place and other countries have also adapted to the standard and it has grown.
Electronic Reporting is not mandatory in Flanders other than for Rhine traffic. ‘But we are expecting a lot of skippers to switch’, says Jan Gilissen of De Scheepvaart NV. ‘Word-of-mouth advertising is working already.’

In Flanders, Electronic Reporting is first of all the final element in the introduction of a simpler procedure for collecting shipping rights, says Jan Gilissen. ‘It is known that all skippers have a reporting obligation and a navigation licence is required for every trip. Until recently, you either had to notify us or Waterwegen en Zeekanaal NV, or sometimes both. It depended on which precise rivers or canals you were using.’

‘That changed recently. We developed a new application together, so that you only have to register once for all navigable waterways in Flanders. Another change is that shipping rights are from now on being calculated on a per kilometre basis, from quay to quay and are no longer based on checkpoints. In short, a simpler and more logical system for inland shipping operators.’

Hotspots on the inland waterways

Electronic Reporting for barges in Flanders is transmitted to RIS through a data connection. In practice, this is often a data modem or mobile phone. ‘There are hotspots in the ports already where you can log in to a wireless network’, says Jan Gilissen, ‘but not usually along the waterways. We aim to change that: we are now working on extending the hotspots along the main Flemish waterways.’
Jan Gilissen about Electronic Reporting in Flanders

Simpler
The culmination of this approach, as stated above, is Electronic Reporting. ‘The traditional system still exists: you can still personally sort out your navigation licence at the first lock on your journey. But Electronic Reporting is much easier. You no longer have to leave your ship to get your navigation licence: you send your application to the RIS centre at the start of your trip, and you are e-mailed your navigation licence by return. And you receive a monthly invoice for your shipping rights that you can pay by bank transfer.’

For those who travel outside Flanders, there is the added benefit that the Electronic Reporting travels ‘with’ the ship: the data is automatically transmitted to the waterways managers along the entire route. As a result the data is already known at the following lock or traffic post, and the skipper just needs to identify himself using the maritime radio-telephone.

For Electronic Reporting, Flanders also uses the Bics programme developed by the Dutch government. ‘Obviously, we could have developed our own programme, but BICS had already proven its value and it’s free. So we were not going to reinvent the wheel or make a number of commercial companies happy. In addition, BICS is being used in more and more countries.’

Basic Information
What needs to be included in the report?
‘Mainly basic information: the name of the ship, the cargo, the number of people on board, the destination, etc. And contrary to the general perception, there is no need to make a separate registration through BICS for each part of a push-convoy. You register the pushing ship and when preparing the journey add the additional vessels by referencing their Europe numbers.’

Electronic Reporting has many practical advantages. ‘It is safer: you don’t have to climb up ladders any more to get your navigation licence, which is especially nice in winter or when it’s raining. And as skipper you can sort out all your administration from in front of your PC.’

‘For the government it is interesting that we get the correct data and that it is easy to retrieve from our database. Just suppose something happens, then at least we know how many people we need to look for. And because we now know in advance who will pass through which locks and when, we can do our lock scheduling more efficiently.’

Ris Centre
Flanders has two RIS centres where skippers can, for example, report accidents or defective signalling, and also ask for information about shipping traffic. Even if you need a doctor, for example, RIS can help you.

RIS now has one central number for all questions or reports: 0800 30 440. You can also contact RIS by e-mail at: ris.hasselt@descheepvaart.be, ris.evergem@wenz.be.

Pilot project
It is now approximately 1.5 years’ ago that De Scheepvaart NV took the first steps with the Electronic Reporting pilot project for seven skippers on the Albert Canal. The trial went especially well, says Jan Gilissen, and Electronic Reporting is now available to all skippers who want to use it. ‘We expect many people to actually do it. Word-of-mouth is doing its work now: the participants in the pilot project are really enthusiastic.’
Sammy Van Perre on the Electronic Reporting test project

‘Especially useful when you cross borders’

When the Flemish government started the Electronic Reporting pilot project one and a half years’ ago, Sammy Van Perre was there. ‘I was one of the first three people who started the Electronic Reporting project’, he says.

The pilot project, in which seven ships took part, has now been completed. From now, anyone who wants to can opt for Electronic Reporting. And that is a good thing, says Sammy. ‘It’s really easy. You no longer have to leave your ship to get your navigation licence. One push on a button is all it takes.’

Sammy travels on the MS Prestige, a 135 metre long cargo ship that mainly transports coal and ores. ‘Until recently it was mostly on the Albert Canal and to the Netherlands and Germany. The main thing about Electronic Reporting is that it is real progress, because you no longer have to report again every time you cross a border. If you stay within Flanders, the system is a simplification, but no more than that. It’s only when you cross a couple of borders that it really proves its usefulness.’

On the topic of the BICS software that he uses to send electronic reports, Sammy has nothing but praise. ‘It’s easy to use and the service is smooth, the CD-ROM arrived almost immediately. It installs itself automatically. And then there’s always the helpdesk. In short: no complaints.’