

8th Online Consultation of the Points of Contact (PoC) of the UNECE Industrial Accident Notification (IAN) System

Mr. Ivan Gremitskikh, Ms. Claudia Kamke and Ms. Liza Rubach
Convention on the Transboundary Effects of Industrial Accidents
United Nations Economic Commission for Europe
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Agenda

1. Opening of the meeting
2. Results of the UNECE IAN System connectivity test
 - a) Presentation of results by the UNECE secretariat
 - b) Discussion on test results, lessons learned and recommendations
 - c) Report by Points of Contact on lessons learned from their conduct of subregional tests in the IAN System in the biennium 2021-2022
 - d) Review of the conclusions from the previous (7th) online consultation of the Points of Contact
3. Required upgrade of the IAN System
 - a) Update by UNECE on upgrades made since the last 7th consultation and further needs to ensure the functioning of the System
 - b) Feedback by the Points of Contact on the letter requesting support with the required upgrade of the IAN System & next steps
4. Any Other Business

2. Background on IAN System

The Convention requires:

- Article 10
 - provide for the establishment and operation of compatible and efficient industrial accident **notification systems** at appropriate levels
 - without delay **notify** at appropriate levels through the industrial accident notification systems
 - Article 12:
 - Request and provide **mutual assistance** to industrial accidents
 - Article 17:
 - Designate and establish a **Point of Contact** for these purposes
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- ☐ Since 2008, the IAN System has been operated through an internet site
 - ☐ Upgraded in 2013-2014
 - ☐ Connectivity tests held by the secretariat each biennium
 - ☐ Purpose: better preparedness and response to industrial accidents

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IAN SYSTEM

2. Results of the UNECE IAN System connectivity test

- a) Presentation of results by the UNECE secretariat
- b) Discussion on test results, lessons learned and recommendations
- c) Report by Points of Contact on lessons learned from their conduct of subregional tests in the IAN System in the biennium 2021-2022
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a) Presentation of the test results (1 / 5)

Approach

- 20 June 2022: Email sent by UNECE announcing the upcoming connectivity exercise of the IAN System and following on-line consultation of the Points of Contact -> **the exact time & date of the test was not announced**
- Email sent to all PoC and Focal Points with the below attachments:
 - IAN System instructions (ENG, RUS)
 - Results of the 7th PoC online consultations (ENG, RUS)
- 21 July 2022 11:11 am CET: UNECE connectivity test conducted
 - Early-Warning Report in Exercise Mode
- 28 July 2022: Results with reactions as of 28 July shared with all PoC and Focal Points
- 10 November 2022: 8th Online Consultation of the PoC

a) Presentation of the test results (2 / 5)

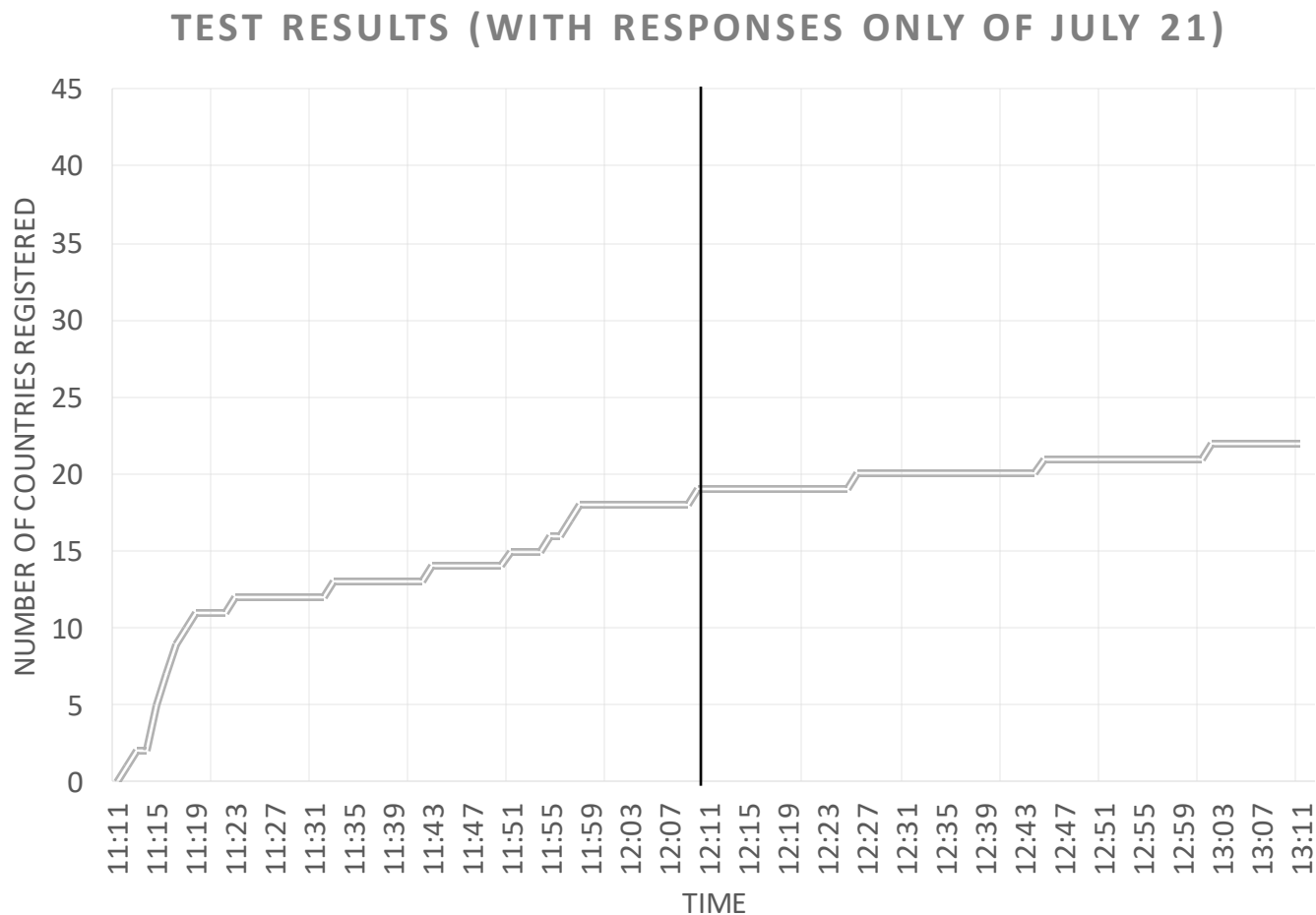
Results of the IAN connectivity test on 21 July 2022 @11:11 am CET

Out of 48 registered UNECE member States, the following reacted:

- 29 Countries acknowledged receipt of the accident report (> half)
- 19 countries reacted within the recommended time (1 hour)
- 19 countries did not acknowledge receipt of the report (< half)
- all Parties registered in IAN (however 3 Parties don't have valid e-mail addresses → now resolved)
- 5 non-Parties registered in IAN (however 1 of them doesn't have a valid e-mail address)
- 0 non-Parties acknowledged receipt of the report

a) Presentation of the test results (3 / 5)

Visualization of the IAN connectivity test on 21 July 2022 @11:11 am CET



a) Presentation of the test results (4 / 5)

Champions (reacted within 1 hour)

11:11 a.m. – Accident happened

11:12 a.m. – Hungary

11:13 a.m. – Czechia

11:15 a.m. – Croatia

11:15 a.m. – Switzerland

11:15 a.m. – Germany

11:16 a.m. – Monaco

11:16 a.m. – Slovenia

11:17 a.m. – Sweden

11:17 a.m. – France

11:18 a.m. – Spain

11:19 a.m. – Denmark

11:23 a.m. – Romania

11:33 a.m. – Luxembourg

11:43 a.m. – Serbia

11:51 a.m. – Ukraine

11:55 a.m. – Netherlands

11:57 a.m. – Armenia

11:58 a.m. – Lithuania

12:10 p.m. – Republic of Moldova

Reacted on the same day

12:26 p.m. – Austria

12:45 p.m. – Estonia

13:02 p.m. – Norway

Late reactions

22 July at 04:13 a.m. – Belarus

22 July at 08:55 a.m. – North Macedonia

28 July at 13:14 p.m. – Russian Federation

28 July at 15:00 p.m. – Finland

29 July at 10:02 a.m. – Poland*

5 August at 17:40 p.m. – Portugal

27 October at 08:14 a.m. – Cyprus

No reactions to the IAN test







- | | |
|--------------------------|--------------------------|
| • Albania* | • Kyrgyzstan (non-Party) |
| • Azerbaijan | • Latvia |
| • Belgium | • Malta (non-Party) |
| • Bosnia and Herzegovina | • Montenegro |
| • Bulgaria | • Slovakia |
| • European Commission | • Tajikistan (non-Party) |
| • Georgia (non-Party) | • Türkiye* (non-Party) |
| • Greece | • United Kingdom* |
| • Italy | • Uzbekistan (non-Party) |
| • Kazakhstan* | |

a) Presentation of test results (5 / 5)

- The report was not delivered to Albania, Kazakhstan, Poland, Türkiye (non-party) and United Kingdom as the countries were either registered with invalid email addresses or reported IT-related issues (Poland).
- After consultations with UNECE secretariat, Poland undertook remediation steps to reconfigure the email address and a separate test was conducted with great reaction time (<1 minute) from the Polish PoC.*
- Albania, Kazakhstan & United Kingdom re-registered in the System after the problem was identified
- Still registered with invalid e-mail accounts: Türkiye (non-Party)

b) Discussion on the test results, lessons learned and recommendations

- Findings from the connectivity test:

-  – The response rate is higher than at the previous test conducted in 2020 (2022: 29 responses, 2020: 25 responses)
-  – The response times within recommended time (1 hour) was higher than for previous exercises (2022: 40%, 2020: 37%)
-  – Forgotten login and passwords prevented several countries from being able to log in on time
-  – Still high number of countries which did not react to the test at all
-  – Some countries fail consistently to react
-  – Several countries had invalid e-mail addresses in the IAN system
- Lessons learned / Recommendations for the future:
 - Increase preparedness and effective response to transboundary industrial accidents by more regular tests and training of PoC
 - More regular tests be conducted at the subregional level (by lead countries to be defined), including back-to-back with assistance activities
 - To increase efficiency and operability of the System, it needs to be upgraded -> Parties to make dedicated funding available
 - PoC must ensure that the e-mail address indicated as registered in the IAN System is valid and functional

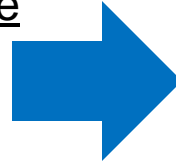
**Any feedback on the test & its results is welcome,
please share your considerations!**



c) Report by Points of Contact on subregional tests in 2021-2022 (1 / 2)

Background – Last (7th) PoC Consultation in 2020 found:

- 18. (a) ...need for continuous exercises... to increase the number of countries which respond to connectivity tests...; Points of Contact are encouraged to test the IAN System jointly..., independently and back-to-back with assistance activities;
- 18. (b) ...more regular tests and training of the Points of Contact be conducted at the subregional level by lead countries;
- 18. (c) Points of Contact were invited to volunteer to act as lead countries for the subregional connectivity test
- 18. (d) ...those countries which conduct tests at the subregional level should...present the results at the next consultation of the Points of Contact as well as at ... meetings of the Conference of the Parties in 2020 and 2022;



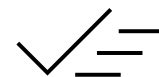
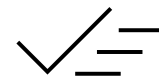
Lead countries that volunteered to conduct subregional tests:

1. Belarus
2. Poland
3. Republic of Moldova
4. Russian Federation
5. Serbia
6. Slovenia
7. Switzerland
8. Others...?

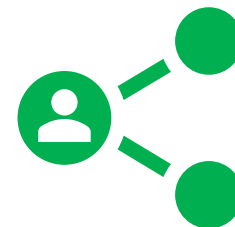


c) Subregional tests conducted in 2021-2022 (2 / 2)

- Switzerland (28 October 2021), notifying France and Germany
- Slovenia (19 November 2021), notifying Italy
- Slovenia (12 May 2022), notifying Croatia



Feel free to share your experience in organizing subregional tests!



Any volunteers for 2023-2024?

d) Review of the conclusions from the 7th PoC consultation in 2020

- 18. (e) Points of Contact are responsible to keep their contact details...up to date and to ensure...they know their access information...and how to use the IAN System...to be able to react...without delay;
 - ➡ Countries with access issues in 2020, did not have such in 2022; several other countries faced issues though, i.e. recommendation remains valid
- 18. (f) Possible technical improvements of the IAN System should be further considered, depending on the availability of funds;
 - ➡ No funds made available, i.e. recommendation remains valid
- 18. (g) Montenegro (MNE) should be requested and Turkmenistan (TKM) encouraged to register a Point of Contact ...;
 - ➡ Recommendation valid (for TKM), MNE registered successfully
- 18. (h) Participants considered the online exchange among the Points of Contact as very useful and suggested that such be held ... in the next biennium

3. Required upgrade of the IAN System

- a) Update by UNECE on upgrades made since the last 7th consultation and further needs to ensure the functioning of the System
- b) Feedback by the Points of Contact on the letter requesting support with the required upgrade of the IAN System & next steps

a) IAN Application Upgrade Requirements

- **Last upgrade in 2014** → 8 years after the IAN application upgrade, it needs to be revised and updated.
- **Why?** Application components and libraries became obsolete and have known security problems
→ This causes cybersecurity and compliance issues.
- **What if we do not act?** There is a risk that the IAN System may be shut-down or closed to external access.



a) Obsolete libraries, java version and application server

- Application components became obsolete and some have known security issues, such as:
 - Log4j → highest impact vulnerability: can be exploited by “Log4Shell”-Exploit (full access to the IAN System, depending on circumstances)
 - SpringFramework, Mssql-jdbc, Hibernate framework, Primefaces
 - There are many more application components and libraries → They should all be upgraded to the latest safe version
- Java and application server should be updated to latest safe version:
 - Java version 1.8.0_322 → Java version 11 or higher.
 - Tomcat Application Server 8.5.69 → version 10.0.20 or higher.

a) Email delivery failures

- During the last test, some of the email messages bounced back. There are various reasons for the delivery failure:
 1. Email address is invalid or non-existent. → Check the email address and contact the organization to get the correct email address.
 2. The recipient email server rejects the message. → Revise the email messages during latest test exercise (for example, bounced email with a code 500.5.7.1, 550.5.7.133, 550.5.11). If the recipient email server does not accept the email message, they should be informed to configure their system to accept the emails from the IAN System.
 3. Graylisting: The email message was rejected once but next time the message will be delivered. This is security measure applied by the recipient email server to identify if the email is legitimate or not. → **In this case the message is delivered, there is nothing to do.**

a) Further existing glitches

- Inactive contacts cannot be deleted
- Password can only be restored after a manual operation by the secretariat, no automatic function for this
- PoC cannot manage their account independently (all updates, such as contacts etc. need to be done by the secretariat)
- System allows for duplicate registrations (accounts with same email addresses but this creates glitches for such users)
- New requests for registrations have to be checked manually (no notification from the System)
- A list of PoC registered in the system cannot be downloaded from it
- While the Systems interface is in ENG, FRE & RUS, notification emails are sent in ENG only
- Countries which have confirmed receipt of notifications sometimes do not show as such (need to repeat action)
- ...

a) Required needs and resources

→ **Regular maintenance:** 1,000 – 2,000 USD annually (to comply with UN cyber security standards and keep the System running)

Essential upgrade

- Fixing security issues
- Fixing email delivery problems
- Fixing existing glitches in operating the System
- Cost: approx. 10,000 USD (one-time)
- Result:
 - Well-functioning and maintained System for its users
 - Compliance with computer security standards&requirements
 - Effective preparedness for prompt response and assistance

Optional upgrade

- Objective: to enhance the IAN System and its user-friendliness
- How? Through the development of new functions, such as:
 - Sms-sending, App, etc.
- Cost: approx. \$10'000-30'000 (depending on the exact scope, features, enhancements etc.)

b) Feedback by the Points of Contact on the letter requesting support with the required upgrade of the IAN System & next steps

The letter was sent on 20 June 2022 to all PoC (Cc FP):

- **Recalled** the role of the IAN System as an important tool for emergency preparedness and response, in particular in a transboundary context;
- **Admitted** that the current functioning of the System is not optimal and needs to be modernized, as previously noted by the Points of Contacts;
- **Emphasized** that the upgrade of the IAN System is required to fix existing glitches, develop new functions (allowing multiple e-mail addresses for one account, creation of a mobile application or sending of short messages) and to ensure full compliance with the cyber security standards and requirements;
- **Invited** to consider providing financial or in-kind contribution for the above-mentioned purposes.
- **Indicated** the possibility to share information on your country's potential financial or in-kind contribution, which will be acknowledged and formally reported to the COP-12.

We welcome your comments and feedback in this regard!



4. Any Other Business?

- Preparation of informal document on 8th online Consultation of PoC
 - Will become available in fourth quarter 2022
- AOB?

**Thank you for your
attention!**