What SafeLine does?

SafeLine’s aim is to reduce the amount of illegal material on the Internet, focusing on child abuse-material, and in general to help protect minors while they are online. Specifically, SafeLine assists

• eliminate audiovisual material that portrays ill-treatment of minors,
• safeguard children’s right to safe online surfing &
• reduce racist, xenophobic, violent and other illegal content.

How SafeLine works?

1. SafeLine receives anonymous reports from the public, about content suspected to be illegal.
2. For each report, SafeLine follows its approved Processing Procedure.
3. SafeLine helped introduce Notice & Takedown procedures in Greece.
4. SafeLine participates in the global network of hotlines, INHOPE, were it exchanges best practices and receives training.
5. SafeLine cooperates with the e-Crime & Digital Forensics units of the Hellenic Police on various other matters.
6. SafeLine is one of the three pillars of the Greek Safer Internet Centre.

More information

This Annual Report can only cover the most important issues, in brief. Please visit www.SafeLine.gr/en, for additional information.
Procedure for Report processing

Internet users locate content that they think is illegal.

When SafeLine receives a report it tries to locate the content. If the content can’t be located, the report is rejected.

If SafeLine thinks that the content may be illegal, it considers following Notice & Takedown procedures.

If SafeLine thinks that the content may be illegal, it considers following Notice & Takedown procedures.

If the content is located, SafeLine determines type of the content & the hosting country and updates the statistical counters.

If the content is CSAM, the URL is uploaded to INHOPE’s ICCAM database, through which Interpol and other hotlines are notified.

If the content is hosted in Greece, the report is forwarded to the Hellenic Police.

Some of them report to www.safeline.gr.

Some of them elect to report their finding (most reports are anonymous).

Sometimes a feedback is received from SafeLine (if feasible).
Notes on the procedure for Report processing

- **Why the reported content may not be located?**
  Because, between reporting and processing, the content is often withdrawn, by the content owner / provider / authorities / etc. In such a case, the report cannot be processed.

- **What is the type of the content?**
  SafeLine categorizes the reports in a number of ways, including the content type: Child pornography, Racism & xenophobia, Terrorism, Drugs, ..., Other content / Not illegal, Queries & Outside Hotline responsibility.

- **What is the hosting country and why do we need to know it?**
  Responsibility for the content is assumed by the authorities of the country physically hosting the content. The report must be forwarded to them.

- **What are the statistical counters?**
  SafeLine & INHOPE publish statistics every year. The counters count content types & location, action taken, etc. for the reported period. Statistics are useful because if you can’t measure it, you can’t improve it.

- **CSAM:**
  Although legislation uses the term child pornography, a more appropriate one is Child Sexual Abuse Material (CSAM). The problem with the term pornography is that it may give the impression that the sexual acts had the consent of the children.

- **INHOPE database, ICCAM:**
  INHOPE maintains a database (ICCAM) with unique CSAM URLs: “ICCAM provides vital intelligence to law enforcement, including INTERPOL, in identifying previously unseen CSAM and supports the process of victim identification”. This speeds up action to save the children involved.

- **Doesn’t SafeLine, or the reporter of the content, know if the content is illegal?**
  What is illegal is determined by the Law. The Law is interpreted by the Courts of Justice, or other appointed authorities. If SafeLine suspects that the content may be illegal it forwards the report to the authorities.

- **Notice & Takedown:** Please see p. 19.
**2011-18 trends**

- **Received reports**
  - Linear equation: $y = -38,107x + 78000$
  - $R^2 = 0.1905$

- **Actionable reports**
  - Linear equation: $y = 184,51x - 367915$
  - $R^2 = 0.5559$

- **Actioned reports**
  - Linear equation: $y = 87,607x - 176061$
  - $R^2 = 0.6703$

**Actionable**: Reports for which SafeLine planned to take action, because they appear to be illegal under Greek Law.

**Actioned**: Reports for which SafeLine took action.

[Graph showing trends from 2011 to 2019 with data points and linear equations for each category]
2011-18 trends, of Actioned & Actionable reports

Over the period 2011-18:

- The total number of reports received by SafeLine has been increasing, on average, by 185 per year, but the forecast value of this rate is average, as $R^2=56\%$. See NOTE A, in p. 13, for an explanation of $R^2$.

- The number of reports actioned by SafeLine has been increasing, on average, by 88 per year. The forecast value of this rate is good, as $R^2=67\%$, but as the actioned reports are drawn from the actionable ones, further increase of the actioned reports will rely on the number of actionable reports in 2019.

- Over the last 8 years, the ratio of actioned/actionable reports has been increasing at a reliable ($R^2=79\%$) trend of +7.7%/year, to reach 76% in 2018. This ratio cannot, obviously, keep increasing, so the trendline is expected to flatten over the next 2-3 years.

- The number of reports characterized by SafeLine as actionable, has been decreasing by 38 per year, on average. The forecast value of this rate is low, as $R^2=19\%$. It is expected that this trend will switch to increasing, following the rising trend of actioned reports.
2011-18 trends, of forwarded reports

Reports **Uploaded to the INHOPE ICCAM database (\& the Hellenic Police)** have increased, in absolute numbers, since 2011, while in relative terms (as a % of actioned reports) they gave way to the other two categories below. In fact, we have:

- +26 reports per year, on average and expected to keep increasing at about this rate for the next few years.
- -5.8% points per year, on average, which were shared by reports **forwarded to the Hellenic Police only** (+3.6% per year) and reports **forwarded to ISPs / Hosting providers** (the remaining +2.2% per year).

Reports **Forwarded to the Hellenic Police only** have increased, since 2011, both in absolute terms, and in relative terms as a % of actioned reports:

- +44 reports per year, on average and expected to keep increasing at an indeterminate rate (as R² is not strong).
- +3.6 points per year, on average and expected to keep increasing at an indeterminate rate (as R² is not strong).

Reports **Forwarded to ISPs / Hosting providers** have increased, since 2011, both in absolute terms, and in relative terms as a % of actioned reports:

- +17 reports per year, on average and expected to keep increasing at an indeterminate rate (as R² is not strong).
- +2.2 points per year, on average and expected to keep increasing at an indeterminate rate (as R² is not strong).
Over the period 2011-18 the following **reliable trends** were observed:

- **Personal data violation**, as a % of actionable reports, **decreased** at an average annual rate of **3,7% per year**.
- **Online financial fraud**, as a % of actionable reports, **increased** at an average annual rate of **6,3% per year**.
- **CSAM (Child Sexual-Abuse Material)**, as a % of actionable reports, **increased** at an average annual rate of **2,3% per year**.

**Graphical representation**

- **Personal data** (-3,7%/year / R²=84%)
- **Financial fraud** (+6,3%/year / R²=88%)
- **CSAM** (+2,3%/year / R²=90%)
CSAM reports have increased, since 2011, both in absolute numbers, and in relative terms as a % of actionable reports:
• +25 reports per year, on average.
• +2.3% points per year, on average.
It is expected that CSAM reports will keep increasing over the next few years:
• +20 / year, from 269 in 2018, and
• +2% points / year, from 22% in 2018.

Financial online fraud reports have increased, since 2011, both in absolute numbers, and in relative terms as a % of actionable reports:
• +71 reports per year, on average.
• +6.3% points per year, on average.
It is expected that Financial online fraud reports will keep increasing over the next few years, at a rate of:
• +70 / year, from 646 in 2018, and
• +6% points / year, from 53% in 2018.

Personal data violation reports have decreased, since 2011, both in absolute numbers, and in relative terms as a % of actionable reports:
• -56 reports per year, on average.
• -3.7% points per year, on average.
It is expected that CSAM reports will keep decreasing over the next few years, at a rate of:
• -20 / year, from 269 in 2018, and
• +2% points / year, from 22% in 2018.
4,591 reports received in 2018

Terminology:

- **Actionable**: Reports for which SafeLine planned to take action, because they appear to be illegal under Greek Law.
- **Adult Content**: Adult Pornography, or Extreme Adult Content
- **Insufficient detail**: Report with insufficient data, to allow processing.
- **Other Content**: Content outside SafeLine’s responsibility.
- **Removed**: Reports about content which was subsequently withdrawn.
- **Various**: Cyberbullying, Queries, Not illegal, or Not accessible.

Notes:

- **CSAM**: Child Sexual Abuse Material. Same as in 2017.
- **Financial fraud**: Online financial fraud. Up from 47%.
- **Other**: Other smaller categories of actionable reports (Copyright breach, Defamation, Other child-related content, Terrorism, Drugs, Promotion of suicide & Sexual harassment). Up from 6%.
- **Personal data**: Personal data violation. Down from 11%.
- **Privacy**: Communications privacy breach. Down from 3%.
- **Racism**: Down from 3%.
- **Spam**: Spam-phising. Down from 2%.
- **Threat**: Down from 7%.
4,591 reports received in 2018

Reports by Internet service:
- **Web sites**: Practically, the 94% of the reports received concerned web sites.
- **Email / Spam**: Practically, the remaining 6% of the reports received concerned Email / Spam.
- **Usenet (Newsgroups)**: The 0.22% of the reports received.
- **Peer to Peer / eDonkey**: The 0.04% of the reports received.

923 reports actioned in 2018

Number of reports forwarded to the Hellenic Police only: **52%**

Number of reports forwarded to the INHOPE ICCAM database and the Hellenic Police: **30%**

Number of reports forwarded to ISPs/hosting providers: **18%**
Country of origin, of the 1,218 actionable reports

- SafeLine determined the origin of 268, of the 1,218, actionable reports (22%).
- Of those, 54% came from the USA and 35% from the EU.
- 2/3 of the 94 reports from the EU originated in Holland (66%).
Endnotes on the Processing of reports

There is no automatic system, yet, which can identify with confidence, illegal & harmful content on the Internet. The only alternative then is the report from the human user of the Internet who comes across such content accidentally. And even then, only a trained expert can judge what is potentially illegal and report the matter to the authorities.

The effort then to make Internet safer, starts from the user report and his/her willingness to share responsibility for the well-being of this unique medium.

A hotline is an entity which offers to the public, a method to anonymously report Internet material, that they think is illegal. SafeLine is the Greek hotline.

To process the received reports, SafeLine follows the Procedure for Report processing. The procedure has been approved by INHOPE.

SafeLine has been audited by INHOPE, regarding compliance with standards and procedures, as set out in the INHOPE Quality Assurance programme.

NOTE A:
When we observe time-series, like in the diagrams in the next pages, where we plot, say, number of reports received per year, we can attempt to add a trendline (dotted lines), of an appropriate shape. The most common shape is a straight line. Each shape has a different fit and the quality of fit is measured by $R^2$.

A trend line of a chosen shape, here straight line, is the line that better fits the given data.

The value of a linear trend line also gives us the average rate of change, say +185/year for reports received. This rate of change is an undeniable fact, whatever the value of $R^2$, and describes what has happened over the observed period (here, 2011-18).

If $R^2$ is good (say, >70%), we can use the trendline to forecast the next 2-3 years. The closer $R^2$ is to 100%, the more reliable the forecast.

NOTE B:
A note of caution is necessary, when we discuss statistical trends, as a common reflex is to try and draw dangerous conclusions. For example, in p. 7, we examine the rising number of CSAM reports received per year, by SafeLine. This fact, does in no way imply that CSAM material is on the rise. What we have observed is that CSAM reports are on the rise, but we do not know the reasons, until we conduct a separate study.

A very challenging, and most likely unsolvable problem, is the separation of the cause factor from the observation factor. For example, an increase in the number of CSAM reports/year may be due to an increase in CSAM content, or an increase in SafeLine visibility, or an increase of public awareness, or an increase in the use of Internet, etc., or on a combination of the above and other factors.
Co-operation with INHOPE

SafeLine believes that current generations are fortunate enough to have Internet, as it greatly enhances human rights, democracy, commerce, culture & innovation and it does so outside the control of any single authority. It is then in the interests of its members, the ordinary Internet users, to help combat Internet’s dark side.

At the same time, Internet as a global medium, can only be protected by global efforts. It is with the above in mind that SafeLine became a full member of INHOPE.

INHOPE membership

• INHOPE was launched in 1999. Its membership currently stands at 46 hotlines.
• SafeLine is a full member since 2005.
• INHOPE Mission: “… to support and enhance the work of member hotlines to strengthen the International efforts to combat child sexual abuse using a multi stakeholder approach”.
• INHOPE Objectives:
  1. Establish policies and best practice standards for hotlines.
  2. Encourage exchange of expertise among members.
  3. Ensure rapid & effective response to illegal content reports around the world by developing consistent, effective and secure mechanisms.
  4. Expand the network of INHOPE Hotlines around the world by … providing consultation and training to meet best practice standards.
  5. Promote a better understanding of the work of hotlines to policymakers at an international level … with the aim of achieving better co-operation.
  6. Raise awareness of INHOPE and member hotlines with key stakeholders as well as with the general public.
• INHOPE Values:
  1. Freedom of the Internet
  2. A commitment to the positive uses of the Internet
  3. A shared responsibility for the protection of young people by government, educators, parents and the Internet industry.
The Greek Safer Internet Center comprises three activities:

1. SaferInternet4Kids
2. Help-line
3. SafeLine

A risk-based approach to Internet safety

In the current context, risk is proportional to
1. the chances that a threat will develop to hurt an Internet user &
2. the expected consequences of this development.

SafeLine aims at reducing the amount of illegal, and mainly, child abuse material on the Internet. Hence, this activity reduces the chances that a minor will be threatened, when surfing.

Risk is also reduced by attacking the consequences. So, it is imperative that minors are better prepared to face threats. The SaferInternet4Kids, aims at raising awareness, among Internet users, about the safe use of the Internet.

The above two activities (SafeLine & awareness building) reduce risk proactively, i.e. they try to lower the risks of tomorrow’s harmful events.

The Help-line aims at reducing the consequences reactively, in that it tries to reduce the consequences of yesterday’s harmful events.

It is well known that, although we aim at eliminating online threats, Internet will be a place with risks. The mission of the Greek Safer Internet Center is to lower these risks to acceptable levels.
Working with stakeholders

... the Police
As mentioned under “Procedure for Report processing”, if SafeLine thinks that the content may be illegal and if the content is hosted in Greece, then the Report is forwarded to the Hellenic Police, and in particular to its Cyber Crime Division. Although the cooperation between SafeLine and the Police dates back to 2004, the Cyber Crime Division, in its current form, is based on a 2014 decree and operates out of Athens, with a sub-division operating out of Thessaloniki.

... the Law
Hellenic penal laws apply to all acts committed in Greece, even by foreigners. The Code also applies to any act described as a felony or misdemeanor, committed abroad by a Greek national, if this act is punishable according to the laws of the country where it was committed.

For crimes committed on the Internet, the place where the crime took place is either the place where the webpage can be read, or where it is hosted.

... the Industry
SafeLine cooperates with the Internet industry, like Facebook, Instagram, YouTube, Twitter, Google & others, as well as with the Greek ISPs.
One dimension of this cooperation concerns the “Notice & Takedown” process (see p. 19), while other areas of cooperation include participation in common meetings and activities.
1. **What kind of Internet content is considered illegal?** Every country defines what is illegal in her own way. Usually, what is illegal offline, is illegal online. In general, all countries outlaw, CSAM and racism or xenophobia.

2. **What kind of Internet content is considered harmful?** It is any material, otherwise non-illegal, which is subject to distribution restrictions (adults only, for example).

3. **What type of Internet content should I report to SafeLine?** You should report webpages with content you believe is illegal. For harmful content use filters, appropriate browser/ISP/router-setting, and/or parental control tools.

4. **Can I report illegal content anonymously?** Of course! When you visit the “Make a Report” page, in the “Personal Information” box, anonymous is the default value.

5. **Why is content I reported still online?** If reported content is still online it may be that what you reported is not illegal in the hosting country, or it may be because an international cooperation of the police is necessary, which might lead to delays in some cases.

6. **Are there any risks to children & young people when playing online games?** Gaming sites can be fantastic fun for young people. However as with any online technology, there are risks:
   a. **Addiction:** Gamers may become so involved that they lose touch with the offline world and stay late at night playing, neglecting also their obligations.
   b. **Abuse:** Some young people can become abusive to other gamers, in their effort to progress with the game.
   c. **Risky behavior:** Some young people may fall victim to adults who are prepared to ask them for sexual favours in exchange of information and knowledge useful to progress with the game.

7. **What is phishing?** It is the attempt to obtain sensitive information (passwords, etc.) by disguising as a trustworthy entity (for example your Bank).

8. **For more FAQs, visit:**
1. **Digitized information**: Information (video, picture, music, text, etc.), that can be processed, stored & transmitted, by computers.

2. **Digital technologies**: Technologies processing digitized information.

3. **Cybercrime**: It is any combination of the following (definition adopted by the EU):
   1. Traditional forms of crime like fraud or forgery, committed over electronic information networks & systems;
   2. Publication of illegal content over electronic media (e.g., CSAM, or incitement to racial hatred);
   3. Crimes unique to electronic networks, e.g., attacks against information systems, denial of service and hacking.

4. **Digital transformation**: The transformation through which businesses and the society, in general, have to go through in order to fully exploit digital technologies. To the extent that society transfers more and more of its operations from physical to digital, to that extent, and perhaps faster, we should supplement physical with digital (or IT) safety & security, to protect people & property against cybercrime.

5. **IT Safety & Security**: Both refer to the condition of being protected from cybercrime. Safety refers to the control of the risks through safety measures, awareness & preparation. Security refers to solid measures taken to protect from cybercrime, like antivirus, firewall, etc.

6. **Hash value**: It is a digital word (say, 20 characters), easily produced from a digital file (any size), in such a way that even if one bit of the file changes, hash also changes in many places. So, a hash value is like the fingerprint of the file. The probability that two different files have the same hash is negligible. The INHOPE network, once it categorizes suspected imagery as CSAM, it uses its hash value for further processing. This is necessary to satisfy the law and minimize the risk of accidental spill of CSAM.

7. **Digital signature**: If the hash value, of a file, is encrypted by the file sender and attached to the file, this may serve as the digital signature of the file sender: A hacker can change the file, but not its (encrypted) hash value, so any attack will be detected by the owners of the encryption password.

8. **Blockchain**: It is a digital record duplicated thousands of times across a network of computers, in such a way that all the copies of the digital record are regularly updated, say every ten minutes. As there is no single central location, where the blockchain is hosted, it cannot be successfully hacked. Blockchain is updated by adding new blocks. Each new block contains an encrypted hash of the previous block, a timestamp and the new content. Private blockchains have been proposed for business use. Digital currencies use public blockchains.
Child Sexual Abuse Material (CSAM) is the most horrific of the illegal content, hotlines come across on the Internet. Frequently, CSAM is being referred to, as child pornography; nevertheless, the term pornography may give the impression of consent of the actors, which cannot be the case for underage individuals. CSAM is then used as the most accurate term, which reinforces that behind images of child pornography there is sexual abuse of real children.

Once CSAM is detected, and to minimize re-victimization, it is extremely important that this content is taken down immediately. Even more important is the assessment, by Law Enforcement, that the specific CSAM depicts past acts, known to the authorities and not ongoing abuse of children. If the latter is the case, then Police has to move in urgently to free the abused victims.

Hence, especially for CSAM, speed is of the essence.

To assist Police, CSA imagery found by the hotline network is stored in a specific INHOPE database, called ICCAM, which allows the identification of new imagery, flagging out the duplicates.

The procedure used to remove CSAM from the Internet is called Notice & Takedown and is described below.

**Notice & Takedown**

1. Notice & Action procedures are those followed by the Internet Intermediaries for the purpose of combating illegal content upon receipt of notification.
2. Takedown is the most common outcome of Notice & Action. Other possibilities are: Blocking, voluntary takedown, proactive & preventive measures and action against repeated infringements.
3. SafeLine notifies the Internet Intermediaries for content on their servers, suspected to be illegal.
4. SafeLine cooperates closely with many Internet Intermediaries: Facebook, Instagram, YouTube, Twitter & others.
5. On notification, by SafeLine, the Internet Intermediaries normally takedown the reported content.
6. A measure of the effectiveness of the Notice & Takedown procedure is the time it takes to remove the “notified” piece. See pie: 

   ![Removal time for CSAM](https://via.placeholder.com/150)

   **INHOPE Global Statistics 2017**
   - 0-3 days: 62%
   - 4-6 days: 17%
   - 7-31 days: 14%
   - 32+ days: 7%

   Internet Intermediaries:
   - Internet service providers,
   - Search engines
   - Social media platforms &
   - others.
   They are companies that facilitate the use of the Internet.
To report illegal material:
www.safeline.gr/en/report
Mail at report@safeline.gr

For more information:
Mail at contact@safeline.gr

To complain about the Hotline:
Mail at complaints@safeline.gr

Find safeline on:
www.safeline.gr
Facebook
Twitter

Developed by Dr. Nikos P. Frydas, FORTH
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