Briefing

EU Legislation in Progress

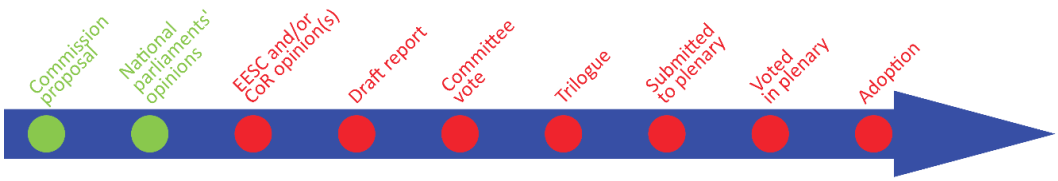
European Parliament

CONTENTS

ENISA and a new cybersecurity act

On 13 September 2017 the Commission adopted a cybersecurity package with new initiatives to further improve EU cyber resilience, deterrence and defence. As part of the resilience measures the Commission has tabled a legislative proposal to strengthen the European Union Agency for Network Information Security (ENISA). Following the adoption of the Network Information Security Directive in 2016, ENISA is expected to play a broader role in the EU's cybersecurity landscape but is constrained by its current mandate and resources. The Commission has presented an ambitious reform proposal, including a permanent mandate for the agency to ensure that ENISA can not only provide expert advice, as has been the case until now, but can also perform operational tasks. The proposal also envisages the creation of the first voluntary EU cybersecurity certification framework for ICT products, where ENISA will also play an important role. Within the European Parliament the file has been assigned to the Industry, Research and Energy Committee.

Regulation on ENISA, the 'EU Cybersecurity Agency', and on information and communication technology cybersecurity certification (the 'Cybersecurity Act')	
COM(2017) 477, 13.9.2017, 2017/0225 (COD), Ordinary legislative procedure (COD) (Parliament and Council on equal footing – formerly 'co-decision')	
Committee responsible:	Industry, Research and Energy (ITRE)
Rapporteur:	Angelika Niebler (EPP, Germany)
Shadow rapporteurs:	Peter Kouroumbashev, (S&D, Bulgaria), Evžen Tosenovsky (ECR, Czech Republic), Pavel Telicka (ALDE, Czech Republic), Jakob Dalunde (Greens /EFA, Sweden), David Borrelli (EFDD, Italy), Christelle Lechevalier (ENF, France), Marisa Matias (GUE/NGL, Portugal)
Next steps expected:	Publication of draft report



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First edition

The 'EU Legislation in Progress' briefings are updated at key stages throughout the legislative procedure.

Please note this document has been designed for on-line viewing.

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Introduction

In light of the significant changes that have occurred in the cybersecurity landscape in recent years and the increasing risks coming from a connected world expected to number over 20 billion connected devices by 2020, the Commission has decided to reinforce the EU's resilience, deterrence and response to cyber-attacks. At the same time the number and diversity of cyber threats is growing unabated.

According to monitoring reports from the EU Agency for Network Information Security (ENISA) there is a trend towards increasing monetisation of cybercrime, with an estimated global loss of US$ 1 billion for 2016 alone. Major cyber-attacks, using ransomware for instance,[1] were among ENISA's top 2016 cyber threats. Since 2016 more than 4 000 ransomware attacks have occurred every day, a 300 % increase compared with 2015. Recent large-scale attacks, such as WannaCry (a type of ransomware attack) in May 2017, have shown how massive the impact can be. This attack affected over 230 000 systems in 150 countries, in this case mainly computers. Another major cyber-attack that took place in October 2016 poured through a network of internet of things (IoT) devices (such as digital cameras and DVR players, but not computers) infected with special malware (a malicious software called the Mirai botnet). As a result businesses are having to invest more money to make cyberspace safer for themselves and their customers.

According to the Commission, the economic impact of cybercrime rose five-fold between 2013 and 2017, and could further rise by a factor of four by 2019, while 80% of European companies were affected in 2016. Not only companies but also citizens and entire countries are affected: the first known cyber-attack on a country happened in Estonia in April 2007, affecting the online services of Estonian banks, media outlets and government bodies for weeks. Since then many other nations have suffered cyber-attacks also affecting critical infrastructure. According to a recent Eurobarometer survey 87 % of EU citizens regard cyber-crime as an important challenge to the EU's internal security and a majority are concerned about being victims of various forms of cybercrime. In the United States of America (USA) about 64 % of the population has experienced a data breach.

In May 2017, under the Digital single market strategy midterm review, the Commission therefore identified tackling cybersecurity threats as one of its three key priority areas for further EU action in the years to come, and announced a legislative proposal for the second half of 2017 and the review of the 2013 EU cybersecurity strategy.

On 13 September 2017, coinciding with President Juncker's State of the Union speech, the Commission and the High Representative of the Union for Foreign Affairs and Security Policy proposed to reinforce the EU's resilience and response to cyber-attacks. Among the initiatives to improve EU resilience, the Commission tabled a proposal for a regulation on ENISA (the EU Cybersecurity Agency) and on information and communication technology cybersecurity certification (the Cybersecurity Act), which proposes a permanent mandate for ENISA and the creation of a voluntary EU certification framework for ICT security products.

1 Ransomware is a subset of malware in which the data on a victim's computer is locked and payment is demanded before the ransomed data is decrypted and access returned to the victim.

Existing situation

ENISA was established in 2004, based on Regulation (EC) No 460/2004. Regulation (EC) No 1007/2008 and the Regulation (EC) 580/2011 extended ENISA's mandate.[2] The agency was established for a period of seven years beginning on 19 June 2013, and its mandate will therefore end in June 2020.

In light of the significant changes that have occurred in the cybersecurity landscape since the adoption of the ENISA Regulation, the Commission decided to bring forward the evaluation and review of the mandate of the agency (otherwise due by 20 June 2018). So far ENISA's role has mainly been to provide expertise and advice rather than dealing operationally with cybersecurity.[3] Until now this has been largely the competence of the Member States. This began to change with the adoption in 2016 of the Directive on the Security of Network and Information Systems (known as the NIS Directive), which formally created a network of Member State computer security incident response teams (CSIRTs).[4] The secretariat for this network is provided by ENISA. ENISA must therefore assist Member States with implementation of the NIS Directive, the deadline for which is May 2018.

The agency will also play a key role in information and communication technologies (ICT) security certification. ICT security certification plays an important role in increasing trust and security in products and services that are crucial for the smooth functioning of the digital single market in the light of the increasing growth of the internet of things and connected devices. At the moment, a number of different security certification schemes for ICT products exist in the EU[5] and some are only valid within their national territories. While these initiatives confirm the importance of certification, the Commission has identified that multiple certification initiatives lead to the fragmentation of the single market. In addition the Commission has also noted that there are not enough national schemes available as these differ considerably by country and by sector. For example, according to the European Commission, a smart meter manufacturer who wants to sell its products in three Member States, e.g. Germany, France and the UK, currently needs to comply with three different certification schemes.[6]

Parliament's starting position

In its resolution of 16 January 2016 Towards a Digital Single Market Act the European Parliament asked the Commission to put in place a strong cybersecurity agency to fight cybersecurity attacks. More specifically, it called for efforts to be made to improve resilience against cyber-attacks, with an increased role for ENISA.

2 With Regulation (EU) No 526/2013 on ENISA finally repealing Regulation (EC) No 460/2004 on 21 May 2013.
3 It also coordinates one of the biggest pan-European cybersecurity exercises, Cyber Europe, which happens every two years.
4 Effective and adequately resourced national computer security incident response teams (CSIRTs) across the EU in accordance with Article 9 of the NIS Directive, which are crucial for increasing the Member States' preparedness against growing cyber-threats. For this ENISA has issued a number of documents and studies describing good practices and recommendations at a technical level for various CSIRT capabilities and services.
5 For instance the *Certification Sécuritaire de Premier Niveau* in France (CSPN), Commercial Product Assurance in the UK, the Dutch Baseline Security Product Assessment (BSPA) or the SOG-IS MRA which includes 12 Member States plus Norway and has developed protection profiles for various digital products.
6 These are the CPA in the UK, the CSPN in France and a specific protection profile based on common criteria in Germany.

In its resolution of 12 September 2013 on the cybersecurity strategy of the European Union: an open, safe and secure cyberspace Parliament called for the development of increased cyber-resilience for critical infrastructures while it noted the growing cyber-security challenges.

More recently in its resolution of 3 October 2017 on the fight against cybercrime in the light of the increasing number of connected appliances Parliament asked for attention to be drawn to the safety of all devices and for action to promote the security-by-design approach. It asked Member States to speed up the setting-up of computer emergency response teams to which businesses and consumers can report malicious emails and websites, as envisaged by the NIS Directive.

Council and European Council starting position

In the conclusions of 15 December 2016, the European Council called for action to ensure complementarity between EU and NATO as regards various threats, including cyber security.

In its conclusions of 19 October 2017 the European Council called for the adoption of a common approach to EU cyber security following the reform package proposed by the European Commission on 13 September 2017. To that end, the Commission's cybersecurity proposals should be developed in a holistic and timely manner, on the basis of an action plan to be set up by the Council. The EU leaders regarded cyber security reform as one of the main ongoing aspects on the road to completing the EU digital single market.

Similarly, the Council, in its conclusions on the joint communication on Resilience, Deterrence and Defence: Building strong cybersecurity for the EU, has welcomed the proposal for a strong and permanent mandate for ENISA with the primary objective of supporting and developing closer cooperation between Member States, to increase their capacities and to increase confidence in a digital Europe.

Proposal

Preparation of the proposal

To underpin the proposal and collect evidence the Commission ran two public consultations and commissioned three dedicated studies: one on the evaluation of ENISA and two on the role of certification and labelling that fed into the impact assessment document accompanying the legislative proposal. The main results are briefly described below.

The public consultations

The main public consultation took place between 18 January and 12 April 2017. It was conducted in the context of the evaluation and review of ENISA in accordance with Article 32 of Regulation (EU) No 526/2013. 90 replies were received, including 88 responses to the questionnaire and two position papers.

98 % of respondents saw a need for an EU body to respond to the needs and gaps identified (see above) and identified ENISA as the appropriate organisation to help the EU respond to those needs and gaps.

The overall performance of ENISA during the 2013 to 2016 period was assessed positively by the majority of respondents (74 %) as contributing to network and information security in the EU. A majority of respondents furthermore considered ENISA to be achieving its various objectives. However a majority of respondents considered ENISA's size in terms of staff members to be insufficient.

In particular, the respondents judged that ENISA, if sufficiently mandated and resourced, could play an important role in improving EU's resilience against cyber-attacks.

An earlier public consultation took place between 18 December 2015 and 11 March 2016 (12 weeks) on the contractual public-private partnership (PPP) on cybersecurity. This focused on the possible establishment of the cybersecurity contractual public-private partnership and also called for contributions on potential additional policy measures that could stimulate cybersecurity industry in the EU. These included a section devoted to ICT security certification. The consultation received 241 responses. On the related certifications questions the majority of respondents stressed the importance of cybersecurity certification schemes for the development of the digital single market in Europe. However, many (37.9 %) thought the current certification schemes did not support the needs of Europe's industry while 44.6 % did not know how to answer the question. A large share of respondents (50.4 %) stated that they did not know whether certification schemes were mutually recognised. Among those who answered more than half felt that current certification schemes were not widely recognised across the EU.

Impact assessment

The impact assessment (IA) conducted for this proposal is substantial, including six different documents (12 annexes in total). The IA explores three different policy options for the review of ENISA and four policy options for ICT security certification (and two options that were discarded at an early stage)[7], including the baseline options. EPRS has prepared an initial appraisal of the Commission's impact assessment.

The IA assesses which policy option could best improve ENISA's capacities in its new operational role while mitigating identified problems.[8] The analysis on ICT certification meanwhile identifies problems such as the growing emergence of multiple national and sectorial certification schemes that increase costs for companies operating across borders in the EU.

The analysis leads to the conclusion that a reformed and enhanced ENISA in combination with a general but voluntary EU ICT cybersecurity certification framework was the preferred option. It concluded that a one-size-fits-all mandatory approach to cybersecurity certification would not work across the large variety of ICT products and services, as needs vary considerably according to sectors.

The creation of this framework should provide companies with a single procedure for cybersecurity certification, reducing costs, facilitating cross-border operations and avoiding fragmentation. Moreover, it is intended to increase cybersecurity assurance for ICT products and services of pivotal sectors (transport, energy, health, the automotive sector and finance, among others) and raise consumers' trust.

The Commission's Regulatory Scrutiny Board delivered a negative opinion initially on 24 July, then a positive opinion on 25 August 2017 upon resubmission. The amended impact assessment report included additional supporting evidence, the final conclusions of the evaluation of ENISA and additional explanations on the policy options and their impact.[9]

The EPRS initial appraisal has highlighted that the Commission admitted the overall lack of evidence in the field of cybersecurity, as companies are reluctant to share information in this field, as it could potentially harm them. The Commission therefore had to follow some key assumptions for the economic estimates of the options relating to ENISA (see Annex 6 of the IA). It appears that a no cost-benefit analysis was conducted. The EPRS initial appraisal also points out that the Commission did not carry out a dedicated public consultation on ICT security certification. However the Commission argues that stakeholders were able to express their views on this issue in the two open public consultations as well as in two surveys regarding ICT security certification organised in 2017.

7 Option 1 on the expiry of ENISA mandate and option 4 on ICT security internal market legislation introducing a mandatory scheme (see pp. 60-62 of the impact assessment main report).
8 Such as the fragmentation of policies and approaches to cybersecurity across Member States, dispersed resources and fragmentation of approaches to cybersecurity across EU institutions, agencies and bodies, and insufficient awareness and information of citizens and companies.
9 Annex 1 to the final impact assessment report summarises how the comments of the board in the second opinion have been addressed.

The changes the proposal would bring

Essentially the proposal would establish an EU cybersecurity agency and an ICT cybersecurity certification framework. Each of these are described below.

The reform of ENISA

The Commission proposes to reform ENISA into a stronger EU cybersecurity agency with a permanent mandate, greater operational resources and a stable footing for the future. Thus new tasks and resources will be given to the agency in areas such as operational cooperation and ICT security certification in order to reflect the new reality and needs in cybersecurity, along with the role of assisting Member States in implementing the NIS Directive in developing their CSIRTs.

At present ENISA is based in Heraklion, Crete, Greece, and has a branch office in Athens. Its budget is €11.2 million for 2017 and it would grow considerably in terms of both budget and human resources.

Table 1 – Current and future resources foreseen to enhanced ENISA

ENISA resources	Now	Future
Staff	84 people	125 people
Budget	€11 million	€23 million
	gradual increase: starting with +5 million 1st year and fully achieved 4 years after entry into force.	

Source: European commission 2017.

Concretely ENISA would be in charge of six different types of activity, as listed below:

1. Market-related tasks within the cybersecurity certification framework, including to prepare candidate European cybersecurity certification schemes, with the expert assistance and close cooperation of national certification authorities: these schemes would be adopted by the Commission. ENISA would also support policy development in information and communication technology (ICT) standardisation.

2. Policy development and implementation: the aim would be to do more to support to the Commission and Member States in the development, implementation and review of general cybersecurity policy and in key strategic sectors identified by the NIS Directive e.g. energy, transport and finance.

3. Capacity building: ENISA would reinforce support for Member States in order to improve capabilities and expertise, for instance on the prevention of and response to incidents.

4. Knowledge and information: ENISA would provide analyses and advice and raise awareness, so as to become the one-stop shop for cybersecurity information from the EU institutions and bodies.

5. ENISA would be in charge of the incident response teams (CSIRTs) secretariat at EU level and would provide assistance on request to Member States to handle incidents.

6. ENISA would handle large scale cybersecurity incidents.

The new agency's mandate, objectives and tasks would be subject to regular reviews.

The agency would also organise annual EU-wide cybersecurity exercises and improve the sharing of threat intelligence and knowledge by setting up information sharing and analysis centres. It would also play a role in the upcoming cybersecurity blueprint for cyber crisis cooperation and the European cybersecurity research and competence centre, to which the agency would link its advice on EU research needs.

The creation of a European cybersecurity certification framework

ENISA's new mandate would also include assisting with the development of an EU certification framework recognised in all the Member States and confirming that products and services are cyber-secure. The proposed certification framework would provide for EU-wide certification schemes with a comprehensive set of rules, technical requirements, standards and procedures. This would be based on agreement at EU level on the evaluation of the security properties of a specific ICT-based product or service. The resulting certificates confirming compliance with such requirements would be recognised in all Member States, as the proposal establishes the primacy of EU schemes above existing national schemes.

The European cybersecurity certification schemes would be prepared by ENISA, with the assistance, expert advice and close cooperation of a European cybersecurity certification group (ECCG),[10] and adopted by the Commission by means of implementing acts. When a need for a cybersecurity certification scheme is identified, the Commission will ask ENISA to prepare a scheme for specific ICT products or services. ENISA will work on the scheme in close cooperation with national certification supervisory authorities represented in the group. Member States and the group may also propose to the Commission that it ask ENISA to prepare a particular scheme.

Once a European cybersecurity certification scheme is adopted, manufacturers of ICT products or providers of ICT services would be able to submit an application for certification of their products or services to a conformity assessment body of their choice. Accreditation would be issued for a maximum of five years and could be renewed on the same conditions provided that the conformity assessment body meets requirements.

10 The ECCG will be composed of the national certification supervisory authorities of Member States.

Views

Advisory committees

Neither the European Economic and Social Committee (EESC) nor the European Committee of the Regions (CoR) has adopted an opinion on the proposal yet, though the EESC has begun its work.

National parliaments

The deadline for national parliaments to submit reasoned opinions on the grounds of subsidiarity was 7 December 2017.

The French Senate adopted a reasoned opinion on 27 November that considers that the proposal does not comply with the principle of subsidiarity. Among other things, it criticises the fact that ENISA's new mandate and the certification framework were put together in one legal text and that the proposal's legal base should be Article 114 of the Treaty on the Functioning of the European Union, together with Article 5 of the Treaty on European Union on security issues. The Senate notes that 'European cooperation on cybersecurity matters must continue to be done on the basis of the Member States' participation and voluntary provision of sensitive information, even those related to national security on which the ENISA cannot therefore dispose of further investigatory powers as planned in the Article 7, point 5 of the Regulation proposal'. On the cybersecurity certification framework it points out that the proposed regulation places the ENISA at the heart of the certification process whereas this agency has no expertise on the matter.

The Spanish Cortes Generales adopted a resolution on 8 November that concluded that the text does comply with the principle of subsidiarity.

The Czech Senate also adopted a resolution on 22 November that supports the proposal but asks for further support for digital literacy activities to change the attitudes and responses of individuals and businesses to cyber threats and to deepen cooperation and coordination with NATO in this field. It supports the proposed reinforcement of ENISA and the extension of its mandate for an indefinite period. However, it should complement the activities of the Member States in the field of cybersecurity and not seek to take over their competences in this area.

Stakeholders' views[11]

During the public consultation a large majority of stakeholders agreed that EU legislative action was needed to enhance ENISA's role and back the EU's fight against cyber-attacks.

11 This section aims to provide a flavour of the debate and is not intended to be an exhaustive account of all different views on the proposal. Additional information can be found in related publications listed under 'EP supporting analysis'.

On the certification framework, stakeholders recognised that in the absence of an EU-wide cybersecurity certification scheme, products and services have to be certified individually in each Member State, leading to market fragmentation. Most importantly, in the absence of EU harmonisation legislation for ICT products and services, differences in cybersecurity certification standards and practices in Member States are liable in practice to create 28 separate security markets in the EU, each with its own technical requirements, testing methodologies and cybersecurity certification procedures, impeding the completion of the digital single market.

The industry associations Business Europe and Digital Europe are in favour of a non-mandatory certification framework based as much as possible on international standards. Digital Europe is concerned that labelling could create a false sense of security in consumer products. Business Europe calls for encryption to be encouraged to protect intellectual property and highlights that this proposal does not address cyber-attacks aimed at businesses to protect them against cyber-theft of critical technologies, trade secrets and other confidential business information.

The FIEEC and ZVEI industry associations welcomed the fact that the European cyber security certification schemes would be defined at European level in order to minimise the fragmentation between Member States and the fact that these schemes remained voluntary, and called for coordinated action on cyber security standardisation. While Deutsche Telekom has stated that to substantially raise the security standards for IoT devices would require much more than voluntary product certification, including mandatory labelling based on clear product characteristics as well as new product liability legislation in the case of insufficient security measures. It also criticises the fact that NIS legislation would need to broaden to other sectors as it would become outdated before the conclusion of the implementation period.

The industry association Eurosmart supports the Commission's proposal while putting forward a number questions, regarding for instance how a fair and transparent process can be assured for the preparation of the certification scheme and how it would be governed. It also criticises one of the Commission studies undertaken for the IA.[12]

The associations IFIA and CEOC meanwhile ask for a clear distinction to be made between critical mandatory certification and voluntary duty of care. As certain high risk products should be subject to mandatory certifications, such as connected cars, smart grids, etc. it also asks for higher security levels for ICT products (i.e. cybersecurity by design and throughout the product/service lifecycle) and for the scheme to be based on international standards.

In this sense the director of operations at ENISA mentioned in a recent interview that binding standards for cybersecurity certification could be beneficial in some areas, such as for critical infrastructure. However, in other areas, binding standards could hamper innovation. For instance in the internet of things area lightweight certification was relevant. He also argued that labels could be developed to complement lightweight certification and highlighted the need for more discussion about how to deal with liability for cyber-attacks.

12 See their technical document on the PricewaterhouseCoopers study.

A research paper from a German think-tank criticised ENISA's governance of the ICT framework and a number of questions that have been left pending. For these researchers the EU has neither defined resilience or deterrence properly nor made sufficiently clear how it intends to overcome institutional fragmentation and lack of legal authority in cybersecurity issues. Moreover, a key criticism is that controversial topics – such as the harmonisation of criminal law or the use of encryption – have been entirely omitted. It asks for Member states to abandon their stand-alone efforts and to speed up the legal regulation of cybersecurity at EU level.

For the European Cockpit Association (ECA), the body that represents European pilots, there are four areas of concern as regards certification:

> certificate 'shopping': the possibility for the manufacturer to select the organisation where the chances of acquiring the certificate are the highest.

> subsidiarity: the idea that Member States will have to endorse certificates issued in other Member States, even when the certifying organisations they have appointed themselves nationally would have denied that certificate, undermining more stringent national standards.

> capacity building: as ENISA will be required to set up an information sharing analysis centre (ISAC), they are concerned in terms of the exchange of sensitive/restricted information by ENISA.

> operational cooperation: the agency will contribute to the CSIRT network in various ways. Under Article 7.4(c), ENISA will be analysing vulnerabilities, artefacts and incidents. The NIS Directive does not so far require Member States to share this information, and since ENISA doesn't collect incident data itself, it is not clear how the activities envisaged under this article will materialise, unless mandatory sharing of information is considered.

Some other concerns were raised by the European banking association and the UK's International Regulatory Strategy Group (IRSG) regarding the fragmentation arising from different regulations coming from different regulators and supervisors. For instance the NIS Directive, Infrastructure Act, PSD2 and the ECB are all asking for to incidents to be reported using different taxonomies and templates. Similarly they see a need to avoid overlapping requirements, such as a possible duplication of responsibilities, for instance between the General Data Protection Regulation and the NIS Directive in the context of incident reporting. Also both FIEEC and ZVEI are calling for better consistency and explicit differentiation between European privacy and security regulations.

Legislative process

Within the European Parliament the file has been assigned to the Industry, Research and Energy Committee (ITRE) rapporteur Angelika Niebler (EPP, Germany). The Internal Market and Consumer Protection, Budgets, and Civil Liberties committees (IMCO, BUDG and LIBE) have been asked for opinions.

On 12 October 2017 the European Commission presented the legislative proposal and impact assessment to the IMCO committee. The committee is likely to vote on its report in mid-2018.

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