

# CYBER **FUTURE** of TURKEY

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**Cyber Intelligence Europe 2017**

5<sup>th</sup> – 7<sup>th</sup> September, 2017 – Bucharest, Romania

# Cyber World on 2017

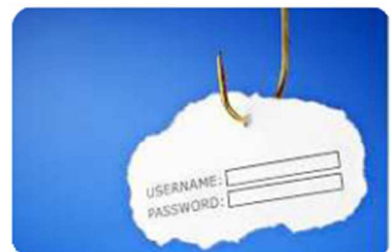


DATA BREACHES	2014	2015	2016
TOTAL BREACHES	1,523	1,211	1,209
AVERAGE IDENTITIES EXPOSED PER BREACH	805	466	927
TOTAL IDENTITIES EXPOSED	1,200,000,000	564,000,000	1,100,000,000
BREACHES WITH 10 MILLION+ IDENTITIES EXPOSED	11	13	15

In the last **8 years** more than **7.1 BILLION** identities have been exposed in data breaches



RANSOMWARE	2014	2015	2016
NUMBER OF DETECTIONS	0	340,665	463,841
RANSOMWARE FAMILIES	30	30	101
AVERAGE RANSOM AMOUNT (US Dollar)	373	294	1,077



PHISHING RATE by INDUSTRY	2016
Agriculture, Forestry & Fishing	1 for each 1815 e-mails
Finance, Insurance & Real Estate	1 for each 1918 e-mails
Mining	1 for each 2254 e-mails
Public Administration	1 for each 2329 e-mails
Minimum: Transportation & Public Utilities	1 for each 6176 e-mails

April 27th, 2017 Symantec Corp. Internet Security Threat Report, Vol: 22

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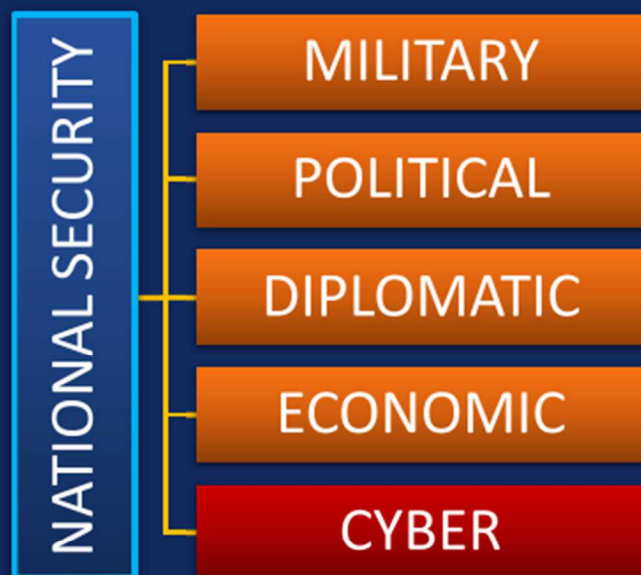
# Cyber World on 2017

Attack Groups	Aliases	Country	Start Year	Motivation	Target Categories & Regions
<b>Sandworm</b>	Quedagh, BE2 APT	Russia	2014	Espionage, Sabotage	Governments, International Organizations, Europe, US, Energy
<b>Fritillary</b>	Cozy Bear, APT29, Office Monkeys	Russia	2010	Espionage, subversion	Governments, Think Tanks, Media, Europe, US
<b>Swallowtail</b>	Fancy Bear, APT28, Sednit	Russia	2007	Espionage, subversion	Governments, Europe, US
<b>Cadelle</b>	/None/	Iran	2012	Espionage	Airlines, telecommunications, Iranian Citizens, Governments, NGO's
<b>Appleworm</b>	Lazarus	North Korea	2012	Espionage, Sabotage, subversion	Financial, Military, Governments, Entertainment, Electronics
<b>Housefly</b>	Equation	US	2001	Espionage	Targets of interest to nation-state attackers
<b>Strider</b>	Remsec	Western	2011	Espionage	Embassies, airlines, Russia, China, Sweden, Belgium
<b>Suckfly</b>	/None/	China	2014	Espionage	e-Commerce, Governments, Technology, healthcare, Financial, shipping
<b>Buckeye</b>	APT3, UPS, Gothic Panda	China	2009	Espionage	Military, defense industry, Media, Education, US, UK, Hong Kong
<b>Tick</b>	/None/	China	2006	Espionage	Technology, broadcasting, Japan, aquatic engineering

Notable Targeted Attack Groups that have been publicly connected to nation states

# Cyber Security & National Security

**National Security:** Identification of **threats** and **opportunities** by monitoring the **regional** and **global** environment in order to take measures against the threats to the national state and **security**, and the **processes** to determine the politics appropriate to these issues and to implement the most appropriate policies (National Security Committee)\*



**NATO Summit in Warsaw, 2016**

2016: Cyber attacks to NATO ICT System  
**500** Attacks/month (60% increase w.r.t. 2015)

National Cyber Security Budgets  
France (2014): **1 Billion €** UK (2016): **2.5 Billion €**

2030 Cyber UnSecurity Volume: **90 Trillion \$**  
(Denver University Research Report)

\* <http://www.mgk.gov.tr/index.php/milli-guvenlik-kurulu/genel-bilgi>

\*\* <http://www.nato.int/docu/review/2017/Also-in-2017/nato-priority-spending-success-cyber-defence/EN/index.htm>

# Current Threads in Cyber Life of Turkey

DATA BREACH – 05.12.2016

WikiLeaks Leaks News About Partners

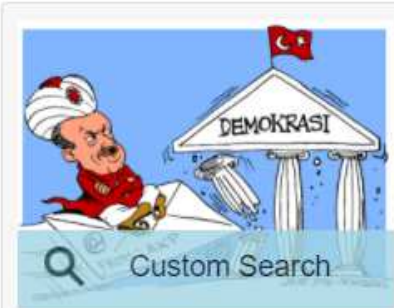


## Berat's Box

Today, Monday 5 December 2016, WikiLeaks publishes an authoritative, searchable archive of 57,934 emails from the personal email address of Berat Albayrak, who is

**57.934 e-mails of  
Minister of Energy**

5 December 2016



## AKP Email Archive

The AKP, or the Justice & Development Party, is the ruling party of Turkey and is the political force behind the country's president, Recep Tayyip Erdoğan. Part one of the series covers 762 mail boxes beginning with 'A' through to

**407.910 e-mails of  
J&D Party**

19 July 2016

DATA BREACH – 08.04.2016

**President of High Electoral Board:** «The identities that leaked into the internet matches the data we shared with political parties in 2008»

AA

08 Nisan 2016 - 16:43 | Son Güncelleme : 08 Nisan 2016 - 17:19

YSK Başkanı Sadi Güven, internette yayınlanan kimlik bilgileri ile ilgili olarak inceleme yaptıklarını belirterek, "İnternet sitelerinde yaptığımız araştırma sonucunda elde ettiğimiz bilgiler, siyasi partilere verdiğimiz veri tabanı ile uyumaktadır. Mühendislerimiz incelemeleri yaptılar, bizdeki kayıtlarla bire bir uyumlu olmasına rağmen bizim sistemimizden herhangi bir sızma yoktur" dedi. Güven, "Verilerin 2008 tarihinde paylaşılan dosyalarla uyumlu olduğu görülmüştür" diye konuştu.



**National ID data of  
Turkish Citizens**

<https://onedio.com/haber/devlet-hastanelerine-siber-saldiri-binlerce-hastanin-kayitlari-sizdi--711565>

<https://wikileaks.org/berats-box/>

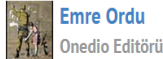


# Current Threads in Cyber Life of Turkey

Critical Infrastructures: Health Sector **18.05.2016**

## Cyber attack to public hospitals: «Health records of thousands of patients leaked»

Ana Sayfa > Haberler > Türkiye > Gündem - 18 Mayıs 2016, 17:48'de eklendi



Emre Ordu

Onedio Editörü

44

Paylaşım



Facebook'ta Paylaş



Twitter'da Paylaş



13b

OKUNMA

Sağlık Bakanlığı'na bağlı 33 devlet hastanesine sabah saatlerinde siber saldırı düzenlendi. Binlerce hastanın kayıtlarının ele geçirildiği ve internette paylaşıldığı öne sürüldü. [Youtube](#) üzerinden eylemin duyurulduğu açıklamada da saldırının Anonymous grubu tarafından gerçekleştirildiği iddia edildi. Ancak akşam saatlerinde Anonymous grubunun [Twitter](#) hesabından yapılan açıklamada bu iddialar reddedildi...

Sağlık Bakanlığı'ndan yapılan açıklamada da saldırıdan sadece [Diyarbakır](#)'daki hastanelerin 'kısmen' etkilendiği belirtildi.

**Health Data Breach  
from 33 Hospitals**

Critical Infrastructures: Energy Sector **30.12.2016**

## Minister of Energy, Mr Albayrak: «We have faced US based cyber attack»

06 Ocak 2017 Cuma - 11:36 | Son Güncelleme : 06 01 2017 - 12:55

**Enerji ve Tabii Kaynaklar Bakanı Berat Albayrak, elektrik ve doğal gaza bu yıl zam öngörmediklerini söyleyerek, geçtiğimiz hafta yaşanan elektrik kesintileriyle ilgili ise "ABD merkezli siber saldırı yapıldı" dedi.**

[Paylaş](#) [Tweet](#) [G+1](#) [2](#) [Yorum Yaz](#) [0](#)

[Print](#) [A+](#) [A-](#)



**Electricity shortage across the country during 5 days  
300 Million Euro loss**

<https://onedio.com/haber/devlet-hastanelerine-siber-saldiri-binlerce-hastanin-kayitlari-sizdi-711565>

<http://www.gazetevatan.com/elektrik-hatlarina-sabotaj-var-mi-bakan-albayrak-yanitladi-1025710-gundem/>

<https://indigodergisi.com/2017/01/elektrik-kesintileri-sanayi-zarar/>

Cyber Intelligence Europe 2017

Bucharest, Romania

# Cyber Strategy, TR-CERT and Turkey

2012

2013

2014

2016

2017

**October 2012**

Decision of the Council of Ministers (CM) Implementation, Management and Coordination of National Cyber Security Work

**December 2012**

National Cyber Security Strategy & Action Plan 2013-2014 (CSAP) presented to CM

**February 2013**

Approval of **TR-CERT** Establishment

**March 2013**

Approval of **CSAP 2013-2014** By CM

**May 2013**  
Secondary Legislation about TR- CERT

**December 2013**

3<sup>rd</sup> Meeting of Cyber Security Board, Membership for **FIRST** and **TI**

**June 2013**

2<sup>nd</sup> Meeting of Cyber Security Board, Determination of first 6 Critical Infrastructures

**November 2013**

Secondary legislation for CERT's

**November 2014**

Preparation of Guides for **Sectoral CERT's**

**July 2014**

Preparation of Guides for **Institutional CERT's**

**April 2016**

**Law on the Protection of Personal Data (#6698) and Establishment of Personal Data Protection Authority**

**August 2016**

Authorization of BTK on protection against cyber attacks (Compansation with Law #671)

**February 2016**

4<sup>th</sup> Meeting of Cyber Security Board, **CSAP 2016-2019**

**June 2017**

Secondary Legislation for Personal Data Protection

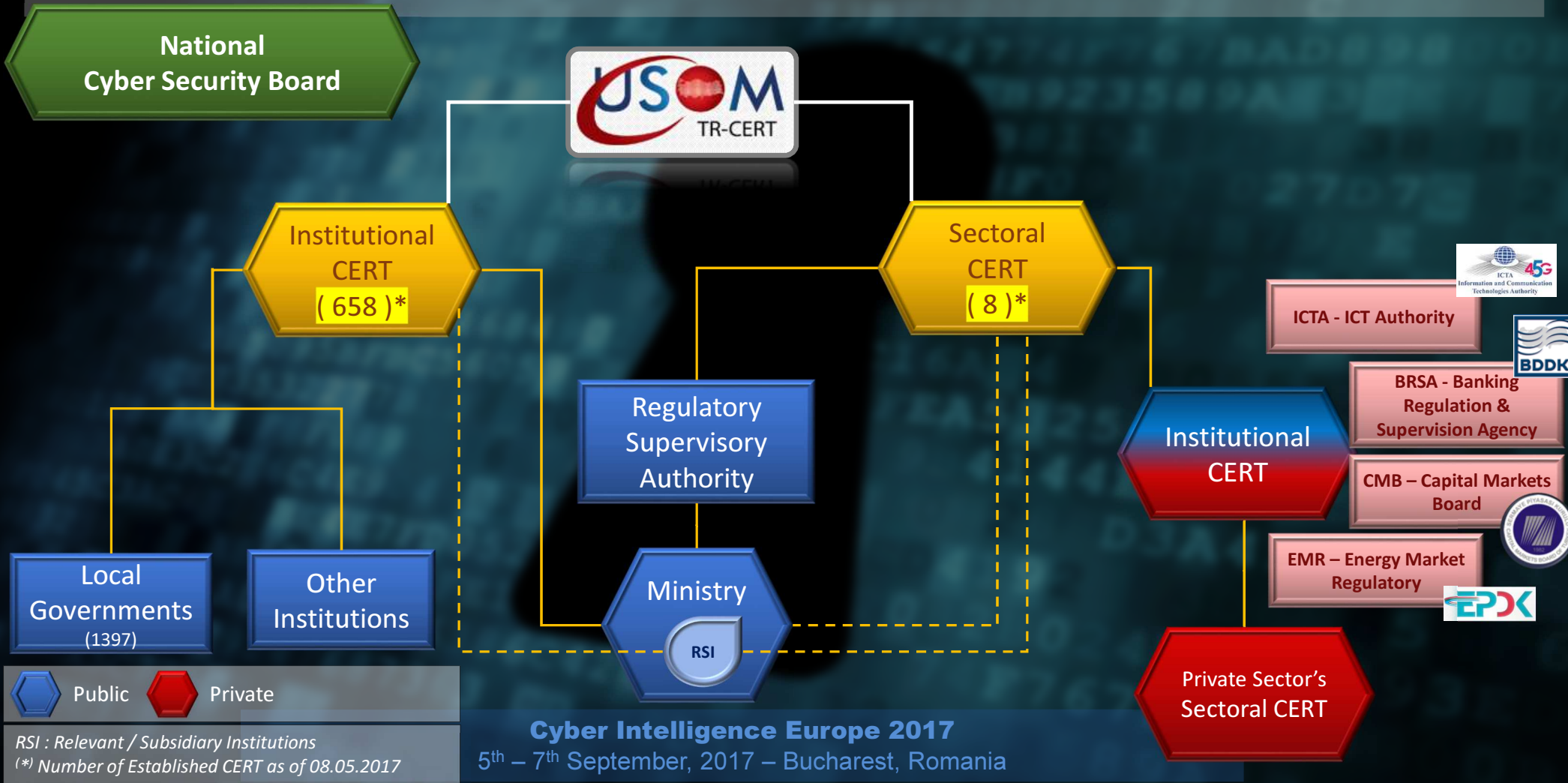
**July 2017**

Secondary Legislation about Cyber Security on **Industrial Control Systems** in Energy Sector

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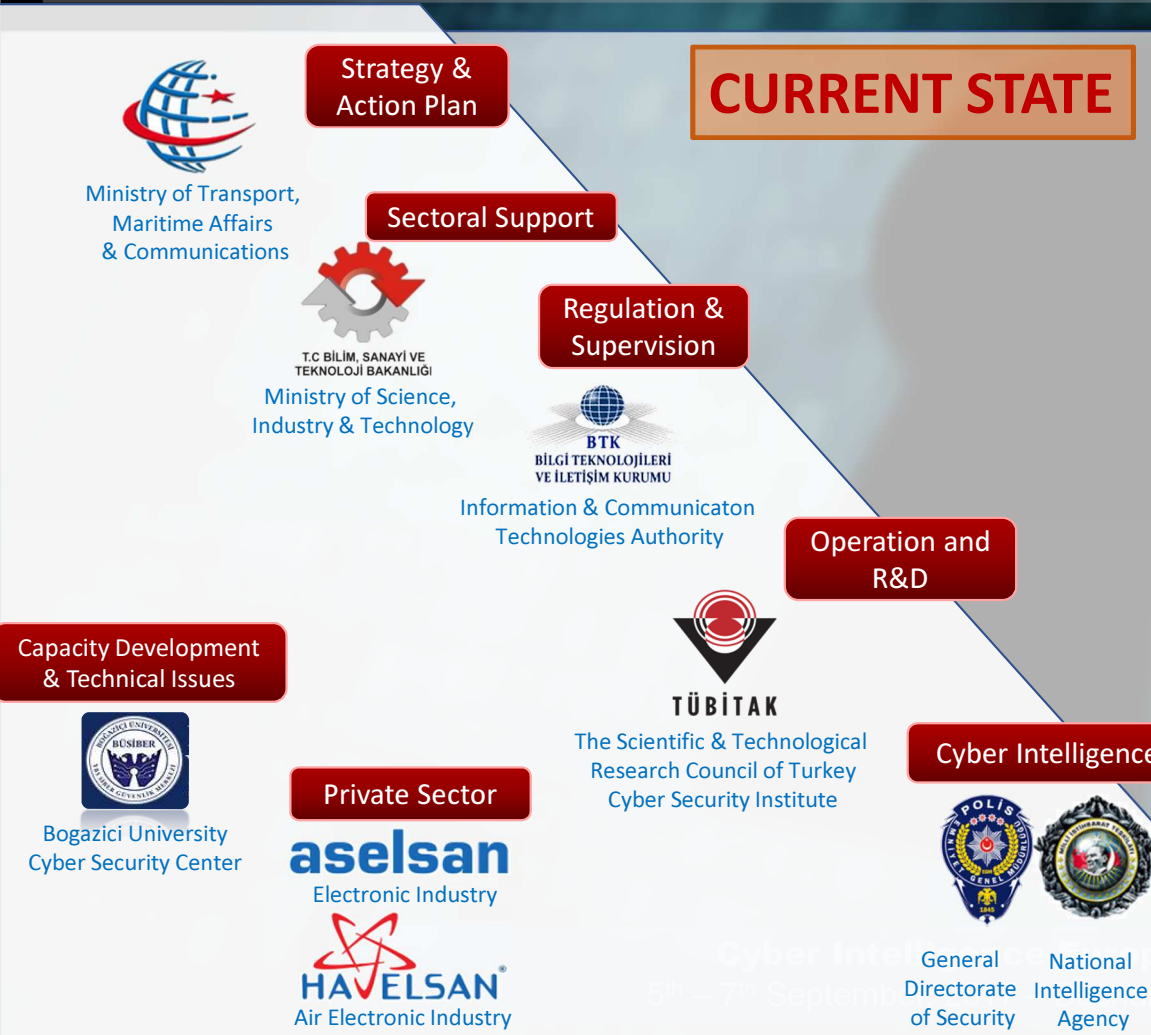
# Cyber Strategy, TR-CERT and Turkey



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# Future Plans on National Cyber Security Super Structure



## Single Center in Cyber Security

16 Şubat 2017 - 22:49 | Son Güncelleme : 17 Şubat 2017 - 10:3

Presidency initiated a work to combine the work carried out in different institutions in the field of cyber security under single center.



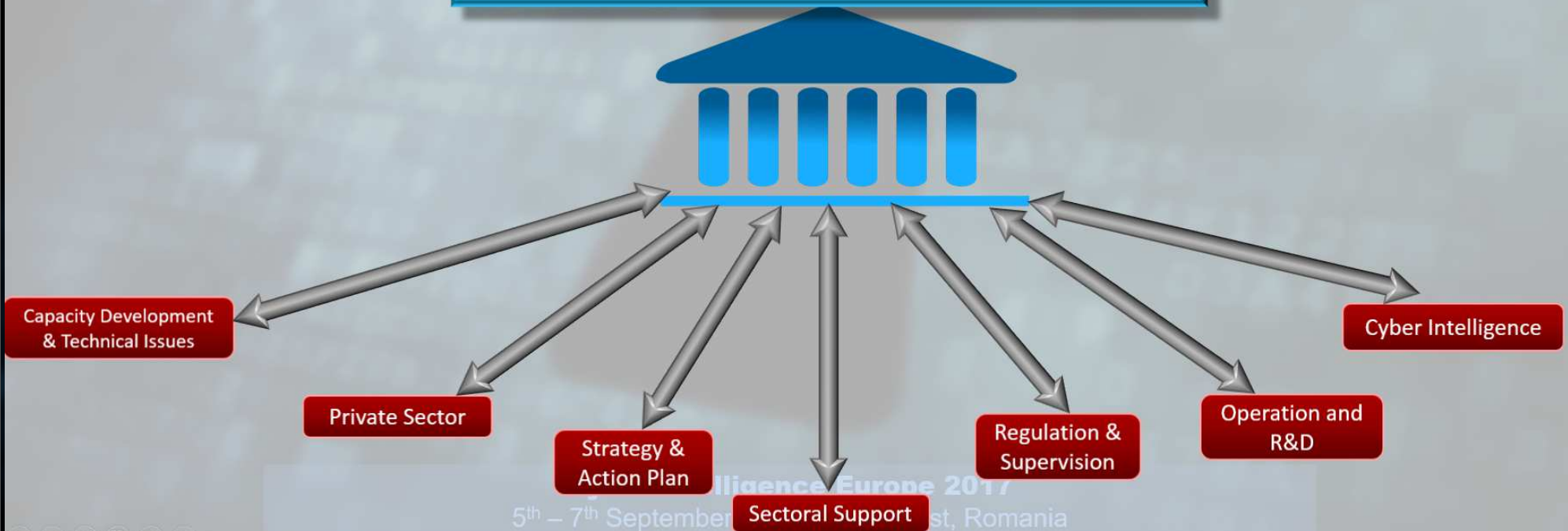
Cumhurbaşkanı Tayyip Erdoğan'ın talimatıyla başlatılan çalışmalar kapsamında, siber güvenlik altyapısının yerleştirilmesi, durum analizi yapılması ve alınması gereken tedbirler ortaya konulacak. Cumhurbaşkanı Erdoğan, FETÖ'nün 15 Temmuz darbe girişiminin ardından kurmaylarına siber güvenlik altyapısının incelenmesi için talimat verdi. Devlet Denetleme Kurulu ve Erdoğan'ın teknoloji kurmaylarının yer aldığı çalışma kapsamında Bilim, Sanayi ve Teknoloji Bakanlığı, Ulaştırma, Denizcilik ve Haberleşme Bakanlığı, Bilgi Teknolojileri ve İletişim Kurumu ile TÜBİTAK gibi kurumlarda ayrı ayrı yapılan siber güvenlik çalışmalarının tek çatı altında birleştirilmesi planlanıyor.

<http://www.hurriyet.com.tr/siber-quvenlige-tek-catli-emri-40368316>

# Future Plans on National Cyber Security Super Structure

## EXPECTED STRUCTURE

- ✓ Top Level **Coordination** in Cyber Security
- ✓ Strong Support for **National Solutions** (HW/SW)
- ✓ Qualified HR **Capacity Development**





# Latest Actions in Turkey

Establishment of  
**Personal Data Protection Authority**  
January 30<sup>th</sup>, 2017



**National E-Mail System**  
August 07<sup>th</sup>, 2017

**Gov.NET Government Secure Network**  
Legislation: June 21<sup>st</sup>, 2017  
Included Institutions: 23%



**E-Government & Cyber Security CIO**  
Chairman: Prime Minister UnderSecretary  
Participants: Undersecretary of each Ministry  
Period : Each Month, regularly (*Since March 2017*)  
Purpose : High Level Monitoring & Coordination

**Cyber Intelligence Europe 2017**

2017 – Bucharest, Romania

<http://www.hurriyet.com.tr/milli-e-posta-sistemi-geliyor-40542359>

<http://www.edevlet.gov.tr/wp-content/uploads/2017/08/03.08.2017-e-Devlet-Koordinasyon.pdf>

<http://www.edevlet.gov.tr/2017/08/04/agustos-ayi-e-devlet-koordinasyon-toplantisi-gerceklestirildi/>

# Latest Actions in Turkey

**Government Integrated Data Center**  
State: Feasibility Analysis



**Havelsan  
Cyber Defence Technology Center  
(SISATEM)**  
23<sup>rd</sup> March 2016



**STM Cyber Fusion Center**  
17<sup>th</sup> May 2016



**Turkish Armed Forces (TAF) - Cyber Defence Command  
Cyber Defence Operation Center**  
11<sup>th</sup> July 2017



HAVELSAN Inc. is an affiliated company of  
Turkish Armed Forces Foundation

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STM Defense Technologies Engineering and Trade Inc.  
is for support services for Turkish Armed Forces (TAF)  
and Undersecretariat for Defence Industries (SSM)



# Latest Actions in Turkey

## Government-Wide **ISO 27001 Certification**

Target: December 31<sup>st</sup>, 2018



## **HR Capacity Development as Cyber Security Expert**

Target: December 31<sup>st</sup>, 2018

## Government-Wide **Cyber Security Tests**

Target: December 31<sup>st</sup>, 2017

Scope: System & Network Penetration Test  
Source Code Analysis, DDoS, Social Engineering ...



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## Cyber Intelligence Europe 2017

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### ESTEEMED INVITED SPEAKERS

- Ambassador Sorin Ducaru, Assistant Secretary General, Emerging Security Challenges, **NATO**
- Brigadier General Hermann Kaponig, Commander, ICT & Cyber Defence Command, Ministry of Defence and Sports, **Austria**
- Anton Rog, Head, National Cyberint Center, **Romania**
- Natalia Spinu, Head, Cyber Security Center (CERT-GOV-MD), **Moldova**
- Arman Grigoryan, Head of National Cyber Security Center, Institute for National Strategic Studies (INSS), Ministry of Defence, **Armenia**
- Hans Oude Alink, Senior Advisor, Crisis Management, National Cyber Security Centre (NCSC), **Netherlands**
- Eirik Troones Hansen, Prosecutor, Cybercrime section, National Criminal Investigation Service, **Norway**
- Toma Cimpeanu, CEO, National Association for Information Systems Security (ANSSI), **Romania**
- Salvador Llopis Sanchez, Project Officer, Cyber Defence Technology, **European Defence Agency (EDA)**
- Mustafa Afyonluoglu, Cyber Security and e-Government Chief Expert, **Turkey**
- Rami Efrati, Former Head of the Private and Civilian Sector, **Israeli National Cyber Directorate (INCD)**
- Professor Dr. Mitko Stoykov, Military-Political Problems of Security, Defence Advanced Research Institute, Ministry of Defence, **Bulgaria**

<https://goo.gl/WDut53>

## Cyber Intelligence Europe 2017

5<sup>th</sup> – 7<sup>th</sup> September, 2017 – Bucharest, Romania