

# **Cyber Insurance and Reinsurance**

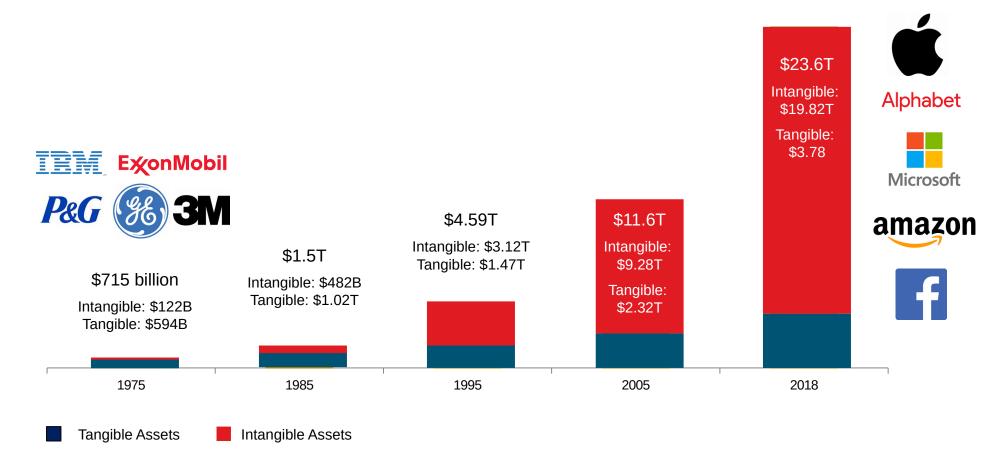
Maria Horalikova, Aon's Reinsurance Solutions

Srpski Dani Osiguranja Aranđelovac, 29. novembra 2018



## Why Cyber?

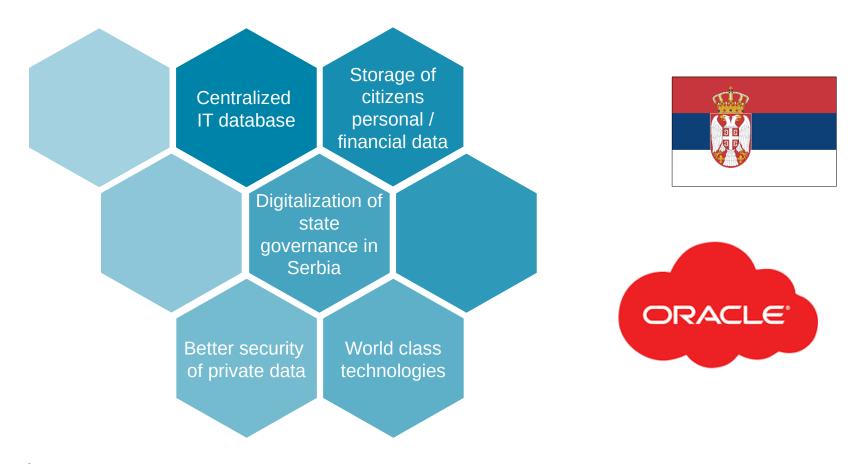
### Tangible Assets vs. Intangible Assets for S&P 500 Companies, 1975 – 2018





## Why Cyber in Serbia?

### Serbia is the second country in Europe to set up State Oracle Cloud system



Very advanced IT solution now makes data security even more important for Serbia

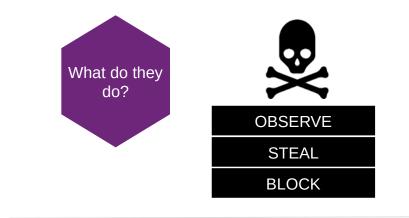
Empower Results®

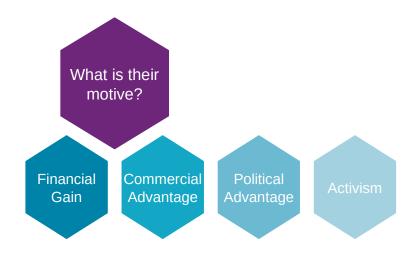
## What is the Cyber threat?

### Every business relying on IT and/or confidential data is at risk









Small / medium-sized businesses are targets
They are often used as the 'launchpads' to large corporates



## NotPetya – Timeline of an Attack



### **March 2017**

Microsoft released a patch (MS17-010) to mitigate this weakness but patching not always on time



### **April 2017**

Exploit developed by the NSA entitled "ETERNALBLUE" leaked online by the Shadow Brokers Group



### **June 2017**

Entities across the globe suffer ransomware attack identified by Kaspersky as "NotPetya" a variant of Petya



### **July 2017**

Medoc identified as a vector for the spread of NotPetya by Ukrainian Police

























# EU General Data Protection Regulation (GDPR) – 25 May 2018

Notification requirement for personal data breaches



Fines up to €20 million or, if higher, 4% of annual global turnover



New duties for data processors + new rights for data subject





6

Not only relevant for EU companies but also for companies working with EU data



## Hidden Threat of "Silent Cyber"

"Silent Cyber" is a Cyber risk not meant to be covered by an insurance policy



- Example: flood policies
- Not explicitly excluded or affirmed
- Policy not priced for a flood resulting from cyber attacks

Highest economic loss USD 56bn

### Dam Attack Scenario in the US by Guideware/Aon: "Silent Cyber" simulation



#### DAY 1

The attacker sends out phishing emails to targeted employees at the contracting firm.



#### DAY 5

Using stolen credentials, the attacker gains remote access to the network of the dam through a virtual private network.



#### **DAY 10**

The attacker causes an unplanned release of water from the reservoir by lifting all gates and outlets simultaneously.

Silent cyber exposures up to USD 9.7bn



#### DAY 2

After one employee downloads malware, the attacker accesses his credentials and other data.



#### DAY 6

Attacker familiarizes self to control the automated components of the dam.

The rapid flow damages the turbine and power station, and the excess water floods the region and forces residents to evacuate.

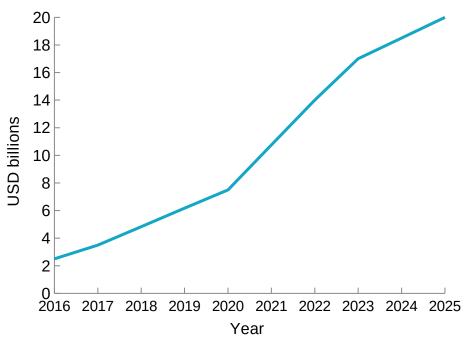
•

Only 12% of exposure would be insured



## The Cyber Insurance Market: Growing up to 30% Per Annum

### Est. cyber insurance GWP growth



#### Sources:

Recent estimates (USD)

2017 \$3.5 billion (Lloyd's, 2016)

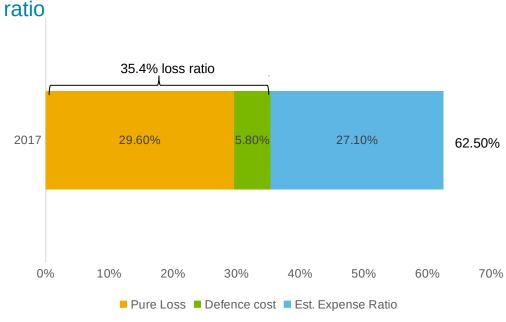
2020 \$7.5 billion (PwC, 2015)

2022 \$14 billion (Allied Market Research, 2016)

2023 \$17 billion (P&S Market Research, 2017)

2025 \$20 billion (AGCS, 2015)

# Estimated US 2017 Cyber insurance combined

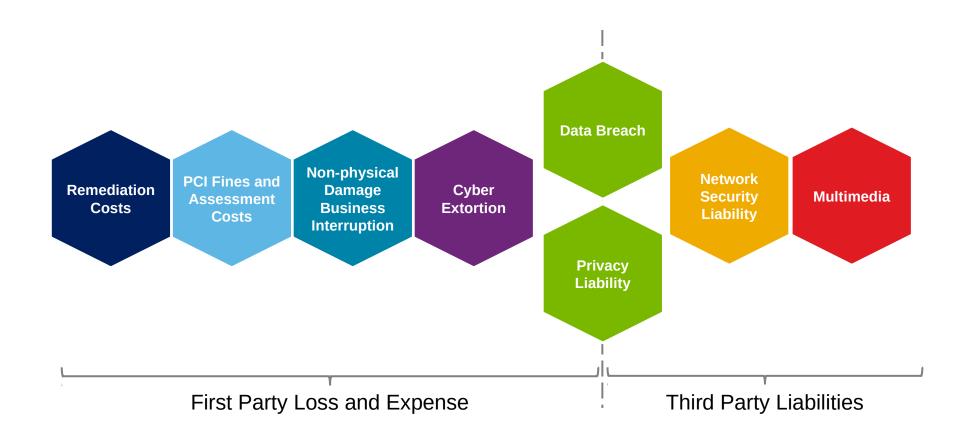


Cyber insurance could soon become [an insured] expectation and insurers that are unwilling to embrace it risk losing out on other business opportunities if cyber products don't form part of their offering.

Insurance 2020 and beyond (published by PwC in 2015)

Empower Results®

## What do Insurance Products Cover?





# The other side of the Cyber insurance proposition: Services





## Reinsurance solutions for Cyber

Quota share

#### Considerations

- Simple, available and sustainable
- Structure can protect volatility of frequency and severity, and systemic issues
- Ceding commissions help offset investment
- Net retained account remains vulnerable to shock loss / run of attrition – consider interaction with net retained XoL / Stop Loss

Aggregate stop loss

#### Considerations

- Protection for severity and frequency
- No claims bonuses
- Can be bought on the insurer's net retention in conjunction with QS or XoL programme
- Subject to maximum contribution from any one loss & any one original policy
- If bought alone book is still vulnerable to vertical losses

Risk excess of loss

#### Considerations

- Vertical protection whilst retaining greater share of premium
- Event cap limits
- Reinstatements
- If purchased with a Stop Loss:
  - Price break on the gross stop loss protection
  - Helps to deal with vertical and sideways losses and protects against peak losses
  - Applicable GNPI includes a deduction for overlying reinsurance spend

Evolution of cover

- Cat XL definition of event
- ILW
- Alternative Capital
- Non-affirmative Cyber exposures

AON Empower Results®

### Conclusion

This is a new risk to the market unlike any other

The risk is not going away

It is in the clients' and regulators' interests that we respond to it wisely

1

2

3

It is in the industry's interest to respond to it well

4

Share expertise

5

### **Contact:**

### Maria Horalikova

Aon Central and Eastern Europe maria.horalikova@aon.com +420 234 618 343





Aon Reinsurance Solutions The Aon Centre The Leadenhall Building 122 Leadenhall Street London EC3V 4AN

tel: +44 (0) 20 7088 0044 fax: +44 (0) 20 7578 7001

www.aon.com

Published by Aon UK Limited trading as Aon.

Registered office: The Aon Centre, The Leadenhall Building, 122 Leadenhall Street, London, EC3V 4AN.

©Copyright Aon UK Limited 2018. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any way or by any means, including photocopying or recording, without the written permission of the copyright holder, application for which should be addressed to the copyright holder.

Aon UK Limited is a wholly owned subsidiary of Aon plc.

Aon UK Limited is authorised and regulated by the Financial Conduct Authority.