THE REAL CHALLENGE WITH PERSONAL DATA PROCESSING

ISACA RISK EVENT – 19 APRIL 2018

INTRODUCING PROTIVITI
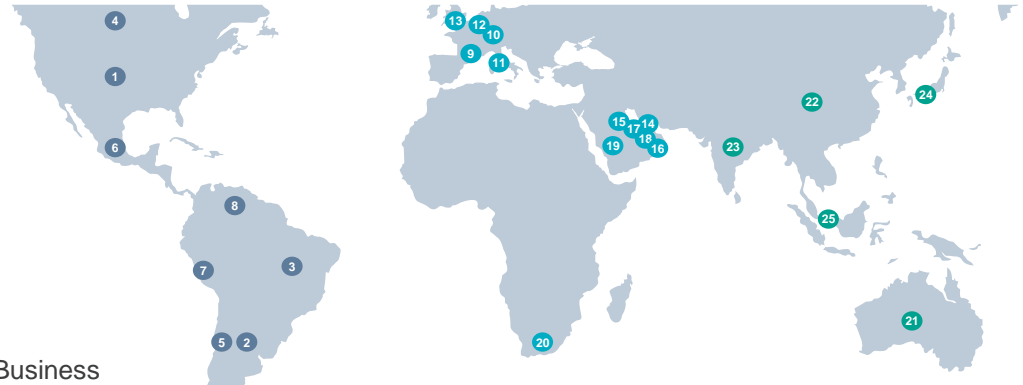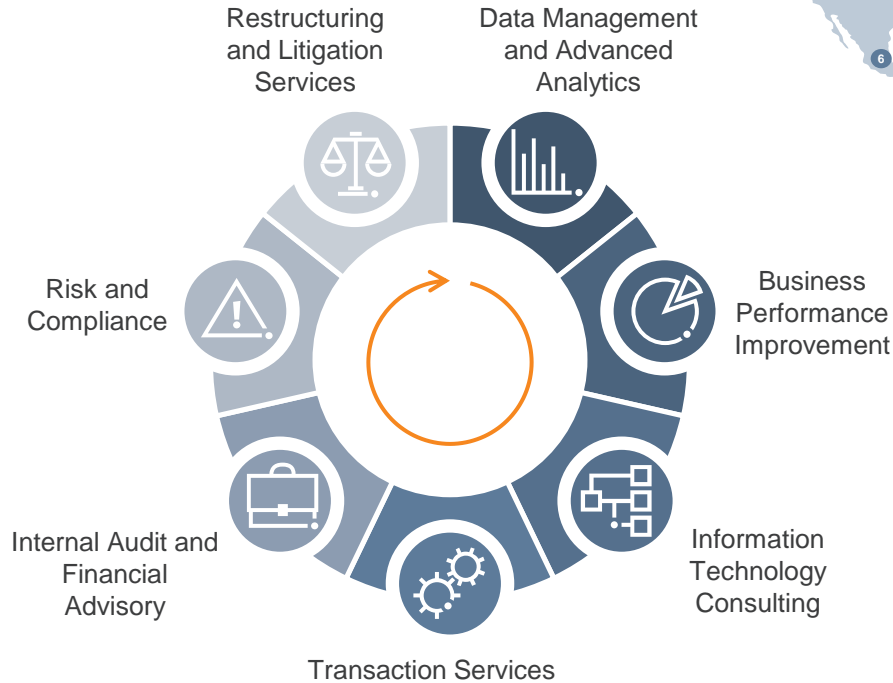

Tjakko de Boer

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About the presenters

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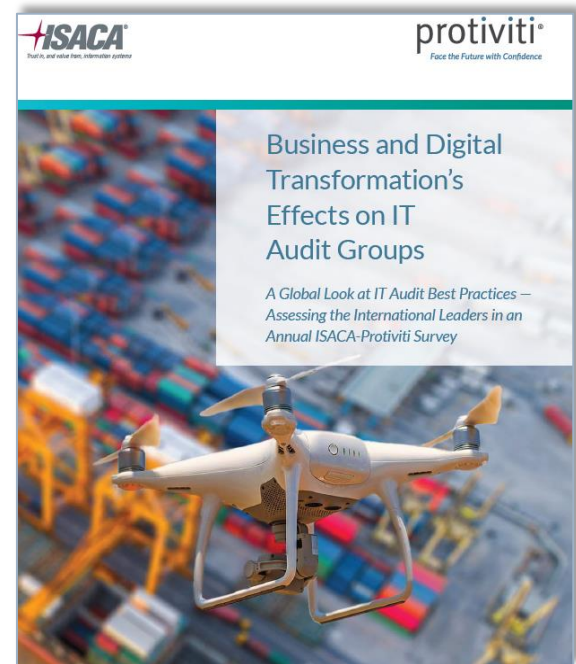# INTRODUCING PROTIVITI

Restructuring and Litigation Services

Data Management and Advanced Analytics

Risk and Compliance

Business Performance Improvement

Internal Audit and Financial Advisory

Information Technology Consulting

Transaction Services

Protiviti services and global footprint

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# INTRODUCING PROTIVITI

Protiviti is Partner of ISACA

IT audit benchmarking survey

- Privacy, data and security are shaping IT audit plans

- Increase of designated IT audit directors

- IT audit professionals should strengthen collaboration with IT compliance groups

- IT audit involvement is necessary in entire IT implementation lifecycle

- Organisations are starting to co-source the IT audit function as workload increases

https://www.protiviti.com/US-en/insights/it-audit-benchmarking-survey

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ROAD TO GDPR COMPLIANCE

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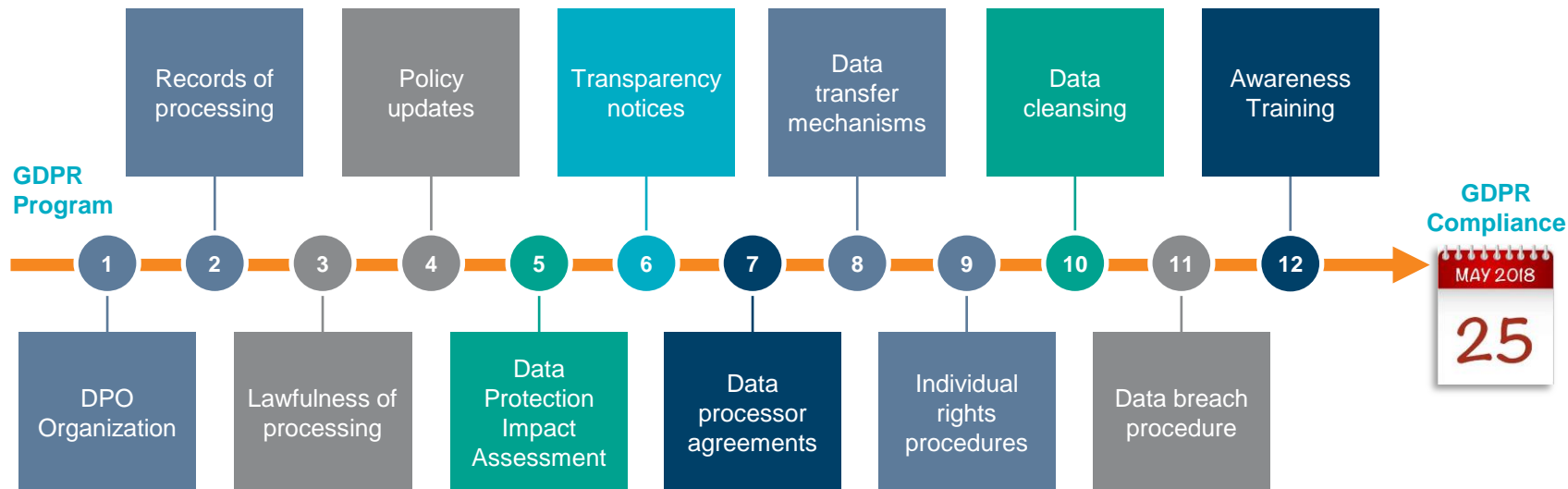
CHALLENGES AFTER MAY 25TH 2018

Potential root causes of Complaints and Breaches

… no clarity on "appropriate organizational and technical measures"
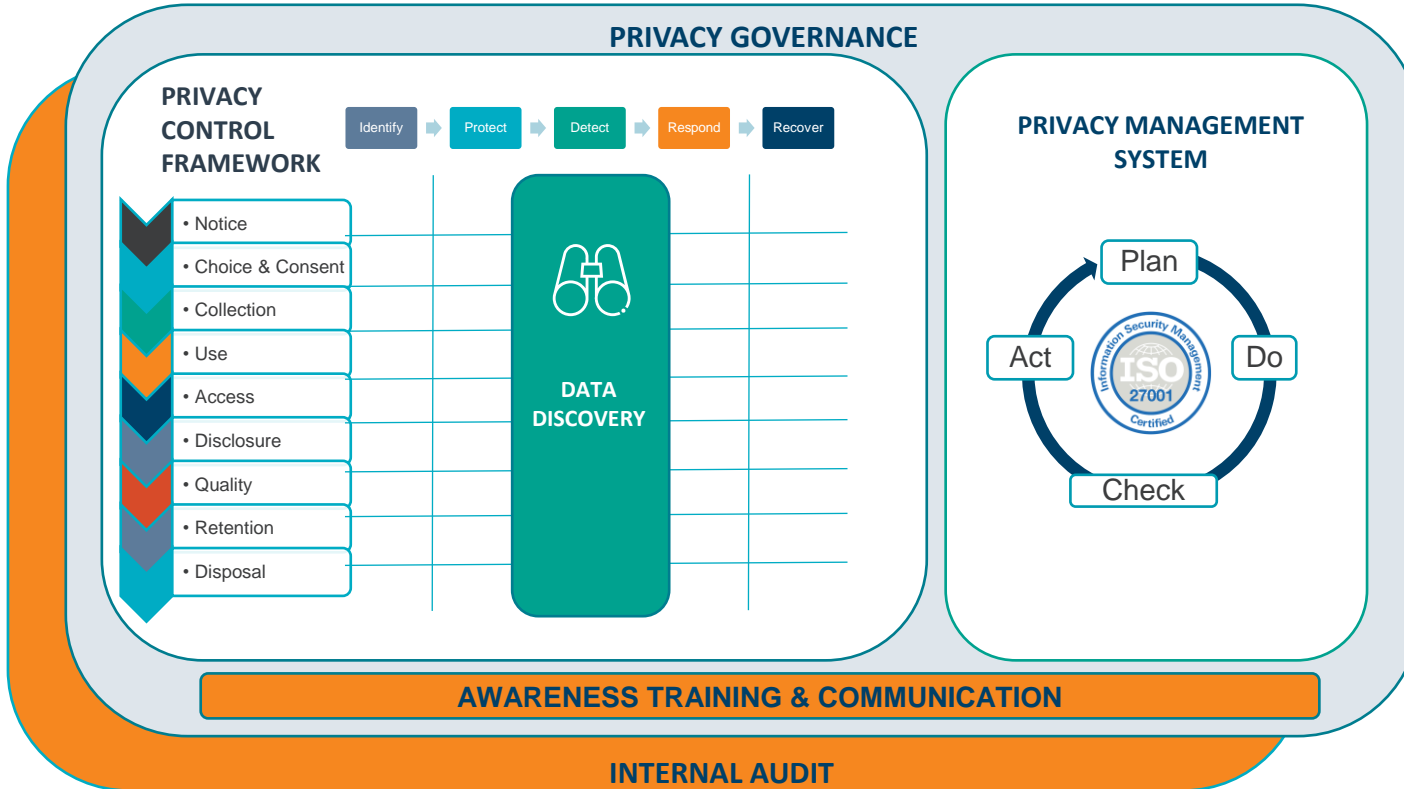
… inability to adapt to change and demonstrate compliance

… lack of personnel awareness on data processing requirements

… no visibility on unstructured data

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RESPONSE TO THE CHALLENGES

PRIVACY GOVERNANCE

PRIVACY CONTROL FRAMEWORK

Identify → Protect → Detect → Respond → Recover

- Notice
- Choice & Consent
- Collection
- Use
- Access
- Disclosure
- Quality
- Retention
- Disposal

DATA DISCOVERY

PRIVACY MANAGEMENT SYSTEM

Plan

Act

Do

Check

Information Security Management
ISO 27001 Certified

AWARENESS TRAINING & COMMUNICATION

INTERNAL AUDIT

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UNSTRUCTURED DATA

Structured
- Organized
- Formatted
- Normalized
- Annotated
- Standard processing
- Controlled
- Secured

Exchange

Unstructured
- Text-heavy
- File-based
- Many formats
- Not normalized
- Not annotated
- End-user computing
- Uncontrolled
- Not secured

Business application

Managing the footprint of personal data

Cisco webex

amazon webservices

Office 365

Google Drive

OneDrive

Dropbox

box

we transfer

Dark Data

Fileshares

Sharepoint

Mail

Endpoints

Cloud solutions

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UNSTRUCTURED DATA

The real challenge with personal Data processing is unstructured data

- Where is it? Who has it? What format?

- Was it not transferred outside the company?

- Are retention periods being maintained?

- Is the personal data well secured?

- Is the data still valid? Not outdated?

- How can we execute the data subject' rights?

- Was it not breached?

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DATA DISCOVERY SOLUTIONS

Delete
Archive
Secure
Block

Data at rest
Data in transit

Protect

Discover

Data Discovery Solution

Analyze

Monitor
Review
Categorize

Specifications

- operates within company network and the cloud
- operate on all environments and file types
- easily deployable and configurable
- resource utilization can be scheduled and maximized
- volumes, velocity, impact
- can utilize different scanning techniques
- has data analytics techniques and can visualize results
- can present discovery results in metadata only
- can demonstrate compliance

Two types of data discovery solutions:

Cloud Access Security Brokers (CASB).

Endpoint Detection & Response (EDR).

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DATA DISCOVERY

Cloud Access Security Brokers (CASB)

- Monitor network traffic on personal data to cloud applications
- Consolidated view on cloud usage and data transfers
- Fingerprint based
- In-line, SPAN or Replay

- Identify shadow and sanctioned IT
- Enforce data-centric security policies
- Prevent unwanted devices to access cloud services
- Demonstrate compliance with regulations

CASB

On premise

Managed Devices (corporate)

Bring your own Devices

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DATA DISCOVERY

Endpoint Detection & Response (EDR)

- Scans servers, workstations for personal data
- Consolidated Insight where personal data is located
- Requires agents installed on host systems
- Fingerprint based
- Files information on scans centrally for analysis

- Endpoint visibility on malicious activities

Targets

Scan

EDR

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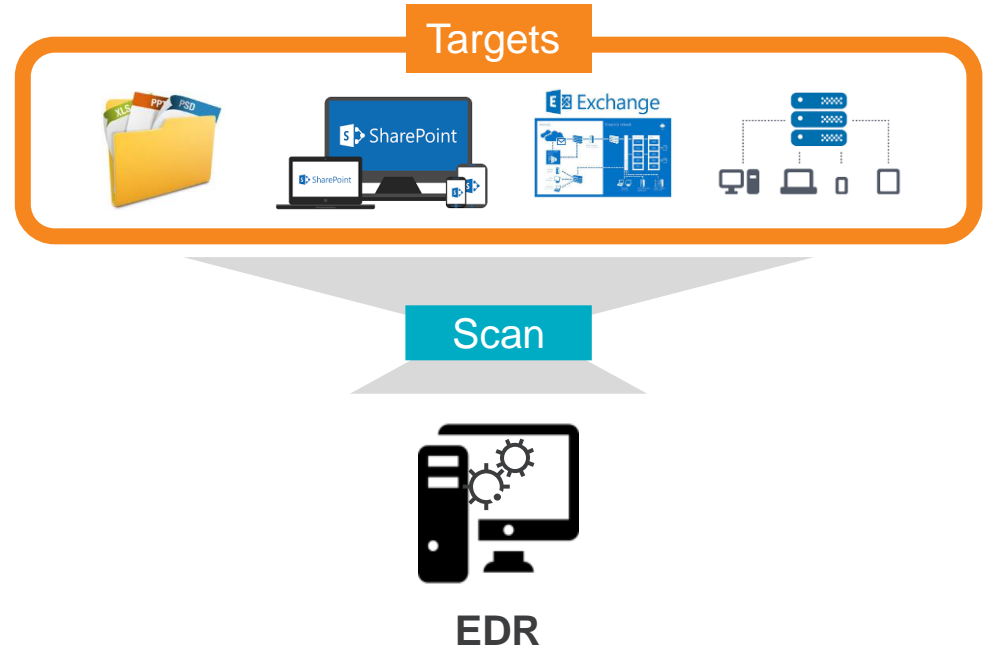
PERSONAL DATA FINGERPRINTS

Information related to an identified or Identifiable natural person ('data subject').

- Full name
- Home address
- Email address
- Social security number
- Passport number
- Driver's license number
- Credit card numbers
- Bank account numbers
- Date of birth
- Telephone number
- Log-in details
- IP Addresses
- MAC addresses
- Curriculum Vitaes
- Medical files
- Client identification number
- ….
- ….
- Specific words as well

Personal Identifiable Information (PII)

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DATA DISCOVERY ASSESSMENT

4 Curate

2 Prepare

Discover personal data

1 Plan

3 Scan

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DATA DISCOVERY ASSESSMENT

Plan

- Select data discovery solutions
- Investigate targets and endpoints
- Investigate on exclusions
- Set fingerprint library
- Agree with Work council
- Draft data clean-up protocol

1 Plan

Step 1

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DATA DISCOVERY ASSESSMENT

2 Prepare

1 Plan

Step 2

Prepare

- Deploy CASB and EDR
- Prepare targets and endpoints
- Configure fingerprint library
- Configure exclusions
- Trial-run to assess impact
- Investigate on false positives
- Refine data clean-up protocol
- Reduce unstructured data
- Determine final planning

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DATA DISCOVERY ASSESSMENT
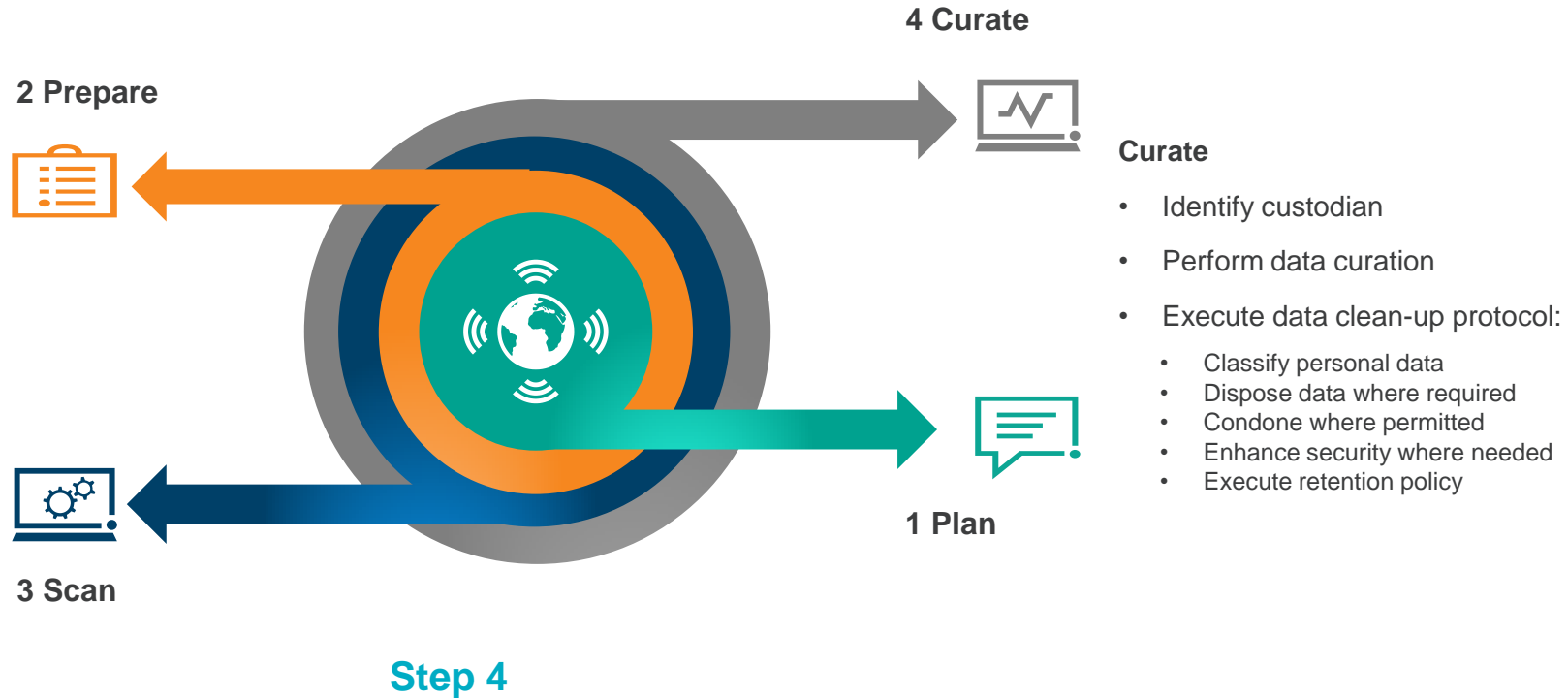

2 Prepare

3 Scan

1 Plan

Step 3

Scan

- Perform CASB analysis
- Perform agent-based scan
- Analyze data discovery results
- Investigate on last false positives
- Agree on data discovery outcomes
- Draft data discovery report

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DATA DISCOVERY ASSESSMENT

4 Curate

2 Prepare

Curate

- Identify custodian

- Perform data curation

- Execute data clean-up protocol:
    - Classify personal data
    - Dispose data where required
    - Condone where permitted
    - Enhance security where needed
    - Execute retention policy

1 Plan

3 Scan

Step 4

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