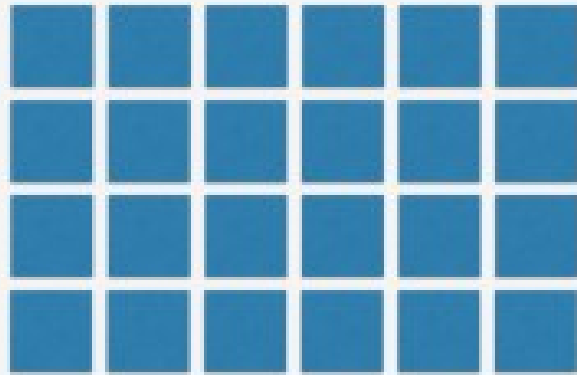# Personal data discovery and encrypted communication
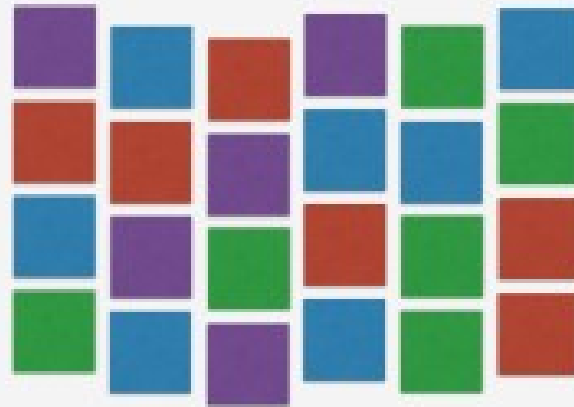
Martins Jurjans
Squalio Estonia
Member of the board

Structured
Data

What you find in a DB
(typically)

Unstructured
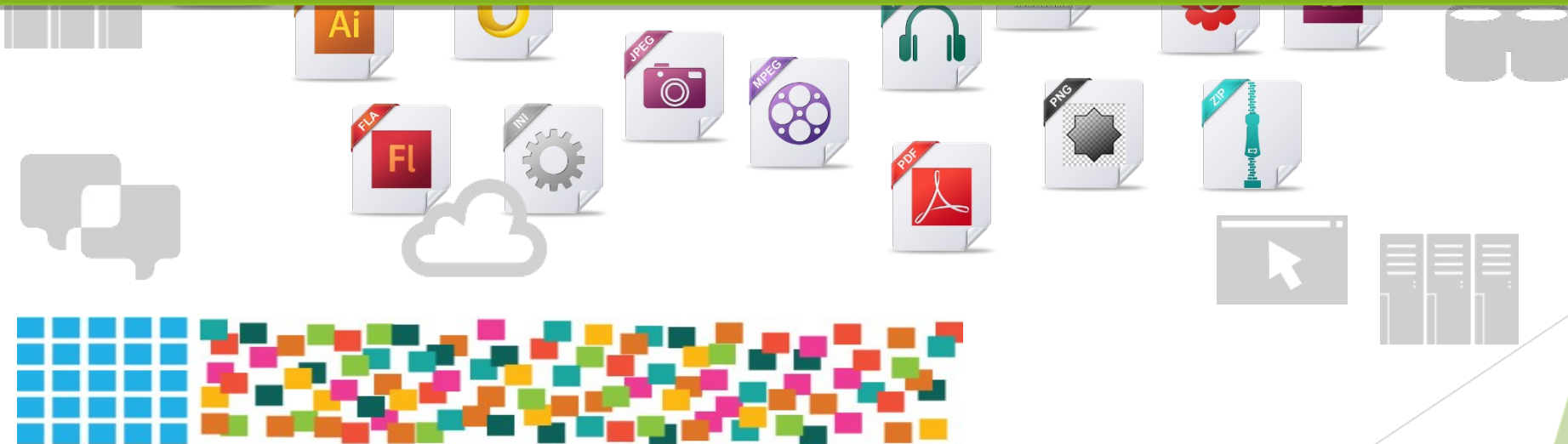## Data

What you find in the 'wild'
(text, images, audio, video)

With the **General Data Protection Regulation**
Regulated Data is Everywhere

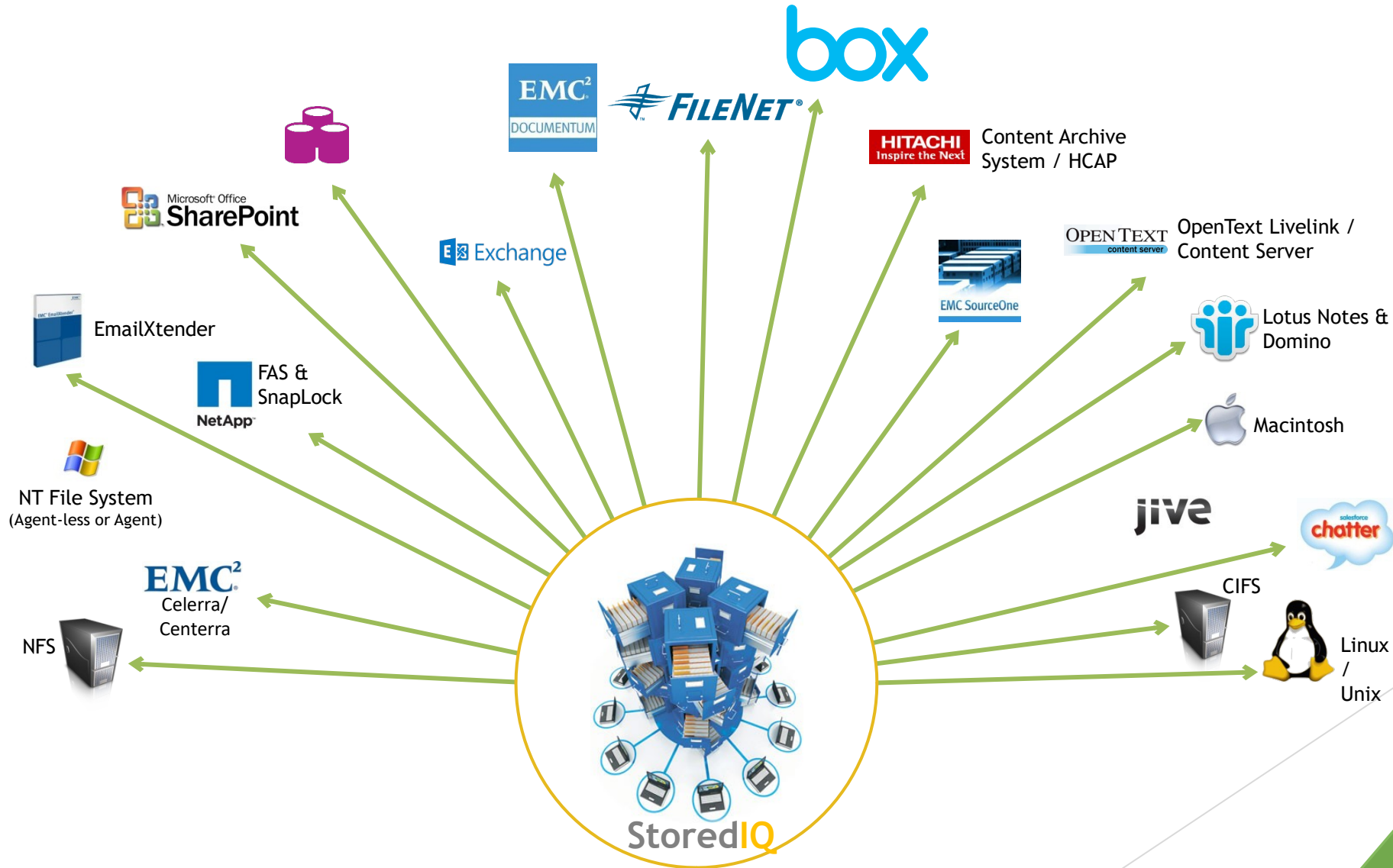You can't protect what you can't find!
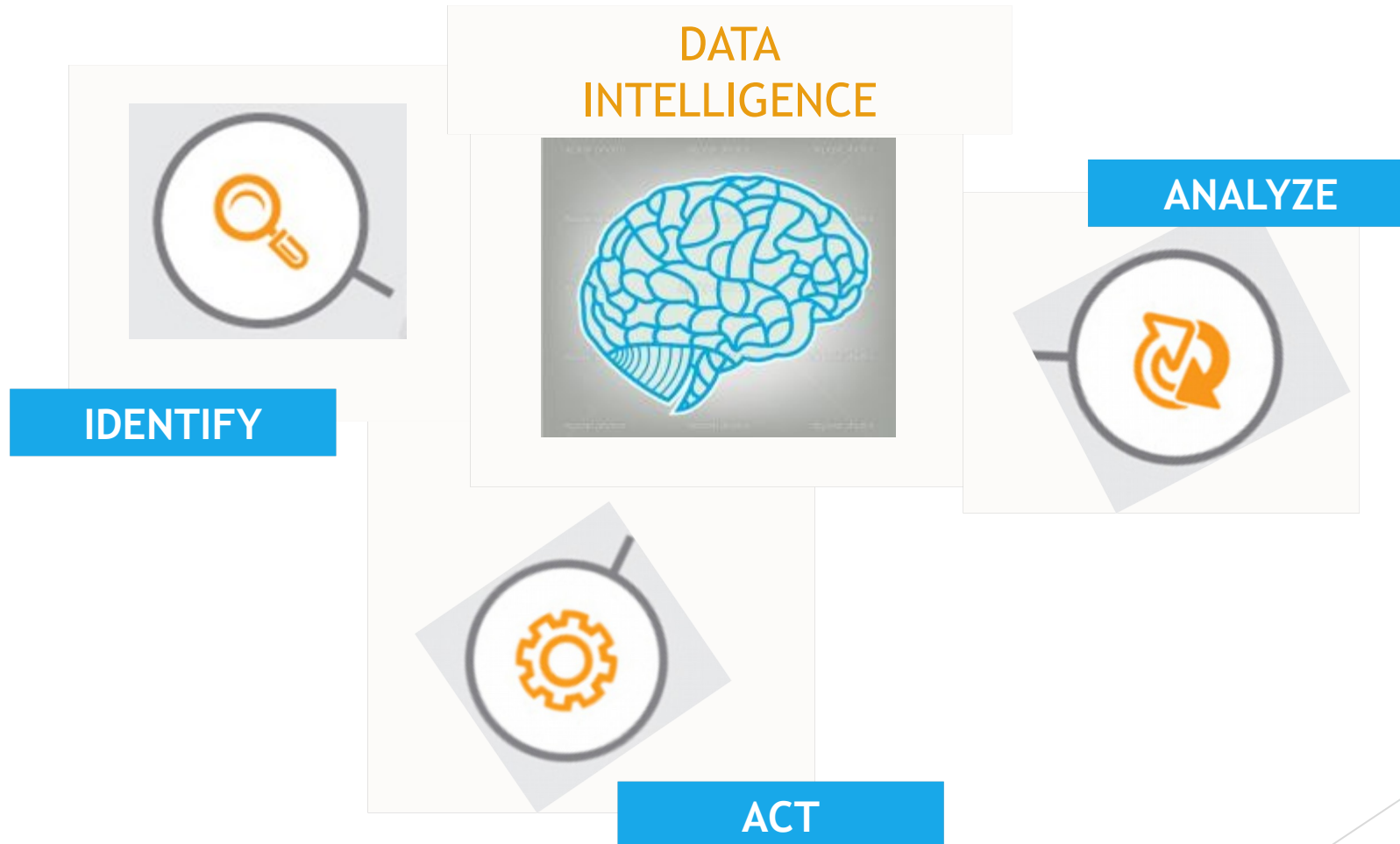
80% of the world's data is **unstructured**

GDPR – Where to start?!

We need to protect private data, but do we know where they are?

Analyze and manage data in their original location

StoredIQ approach: data about data

DATA
INTELLIGENCE

ANALYZE

IDENTIFY

ACT

GDPR – Typical Gaps
Biggest Opportunities for Improvement

▶ **Typical organizations retain far too much ROT data**

Redundant, Obsolete and Trivial

- ✓ Redundant data—duplicates that are no longer of value
- ✓ Data that has aged past its useful life
- ✓ Data that has no ongoing business value

▶ **Typical organizations struggle with dark data**

No insight into it, yet any breach can uncover….

- ✓ Personally identifiable information (PII)
- ✓ Highly confidential information (HCI)
- ✓ Payment Card Industry (PCI) data

▪ **Dark data risk include**

Sources such as…

- ✓ Email, chat, file shares, SharePoint, desktops, etc.
- ✓ Regulatory data stored in the wrong location with no visibility to it's lifecycle
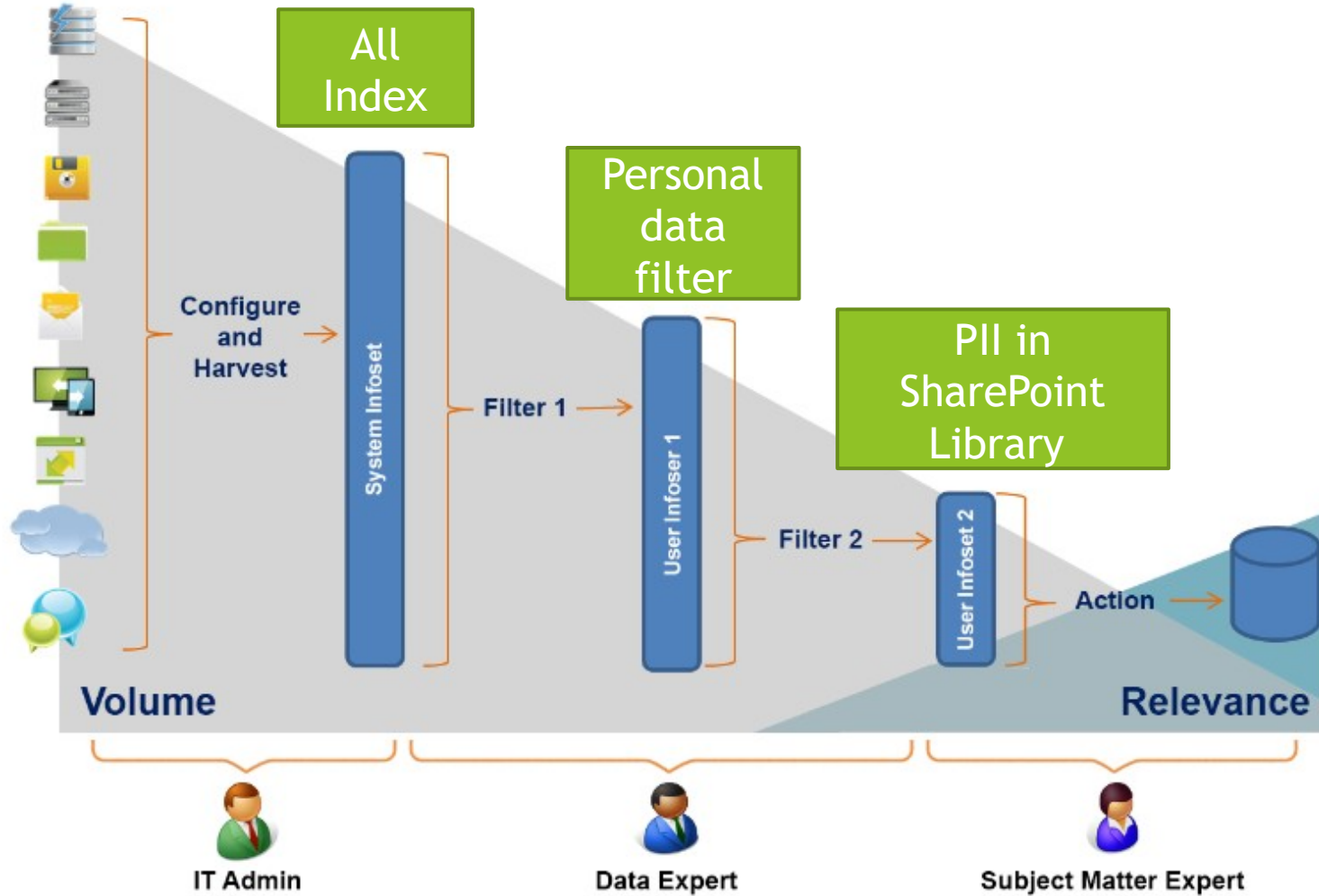- ✓ Can all be eDiscovery and privacy blind spots

70%
Typical amount of unstructured data that has no value

Organizations are unaware of sensitive content residing outside of expected security protocol

35%-45% of data created this year will hold no business value in one year - Gartner 2014

StoredIQ harvesting and filtering process

Finding Sensitive Information

Regular expressions

- Credit card numbers
  - Utilizes a pre-built macro that includes regex and Luhn algorithm
- Bank info (SWIFT or IBAN)
  - re:"^DE\d{2}\s?([0-9a-zA-Z]{4}\s?){4}[0-9a-zA-Z]{2}$" #IBAN
- Other account/document identifiers
- Government ID Numbers
  - re:"[A-Za-z0-9+/]{22}[A-Za-z0-9+/=][A-Za-z0-9+/=]" #Austria

Keyword/term matching

- Specific name, address, ID number etc

Word Lists

- Output from HR & CRM systems, other data sources for related keywords

Logical and special operators (AND, OR, Within Proximity, PRE etc.)

Policy

- Determine whether the data has business value
- Determine organizational policy for how that data category should be treated going forward

Organizational

- Remind users that personal information is not allowed on file server/desktop/etc
- Could utilize Notification/Acknowledgement system by distributing **Reports**

Move

- To more secure location (if move is supported by SIQ for given data source)

Delete

- If delete is supported by SIQ for given data source

Key benefits

Find the data that matters — Properly discover, classify and manage information according to business value to reduce risk and cost

Identify sensitive content and act — Find misplaced client data, PCI and privacy-regulated data and act to compliance reduce risk

Get rid of old, obsolete data — Delete nonbusiness, aged and obsolete data to reduce data volume

IBM StoredIQ DEMO

https://www.youtube.com/watch?v=ZX5tFtVC-y0
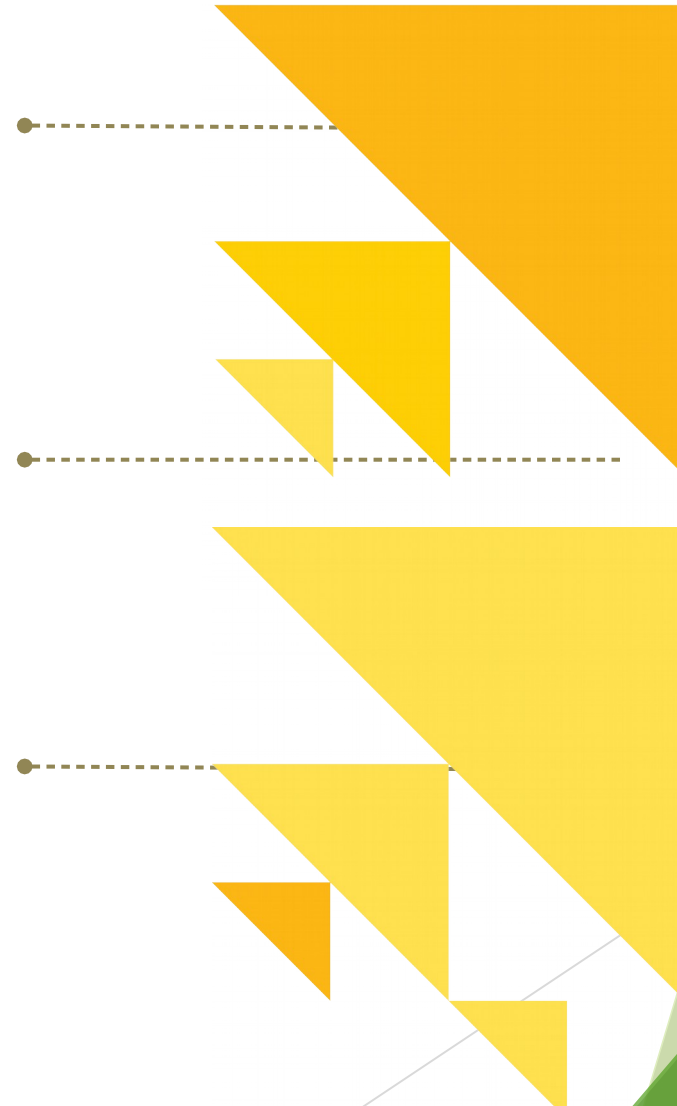
Secure email communication with Cryptshare

- Right of access by the data subject and right to rectification using Cryptshare

  - Encrypting data transfer to receiver possible

  - Ad-hoc use (supports Outlook and Office 365)

  - Metadata is also encrypted

- Data protection settings at a high level ... including those for outgoing e-mails

  - Protective e-mail classification regulates the security settings for users in the enterprise

  - Central management of policy settings bring IT Compliance

  - Highly secure encryption is used at times (256-bit encryption)

Cryptshare® DEMO

https://www.youtube.com/watch?v=R5OQR87wMVM

https://www.youtube.com/watch?v=ciNHn38EyRc

Cryptshare automation use cases

▶ **From your file system:** sending documents and files such as catalogues, technical descriptions, software updates or manuals to clients or business partners whenever new versions of these are available.

▶ **From your ERP system:** deliver orders, order confirmations, delivery notes, invoices etc. to clients or business partners automatically whenever these documents get generated by your ERP system.

▶ **From your website or web shop:** deliver documents to your client in a secure and traceable way, for example documents or files that have been selected for download, generated by your web application or purchased from your shop.

▶ **From your HR system:** send payslips or commission statements to your employees securely.

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