

# Bank of Canada's IM perspective on the digital transformation journey

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# Agenda

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- Main components of our Information strategy
  - Challenges, vision, maturity and evolution
- Main projects to embrace the digital age:
  - DROP – Decrease Records on Paper strategy
  - Email Management
  - Network Drives Content remediation
  - Data Catalog
  - ...and many others

## Challenges we are facing in the digital age

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- **Governance for data and information is decentralized** at the Bank
- Staff create information on **many systems and in many formats**
- Difficult to find **critical information** when you need it
- The volume of BoC information created is **growing exponentially** on a shorter timeframe
- Staff want to retain everything
- The Bank needs more and more **data information that are externally purchased or acquired**
- Supporting **ATIP needs** to find information is very difficult
- Supporting the Bank **Open Access** strategy

## Support from key Executives

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**“INHOUSE:** What is your **No. 1 challenge with technology right now?**

**FARR:** I can't really identify just one; I have to identify two. **One is record retention and retrieval.** We have a proliferation of systems across a variety of different platforms that don't communicate with one another. We don't have a centralized search capability, so, both in terms of responding to access to information and litigation discovery, it has become problematic. Add to that a corporate culture of retaining everything even though it is transitory and doesn't need to be retained and that's finally brought the institution to a critical halt in trying to respond effectively and efficiently. We have a major initiative underway of a single data management platform that is being introduced. Probably the biggest change management issue is a one-year retention period with automatic disposal: You either file what you have or you lose it after a year. That's just being rolled out now.”

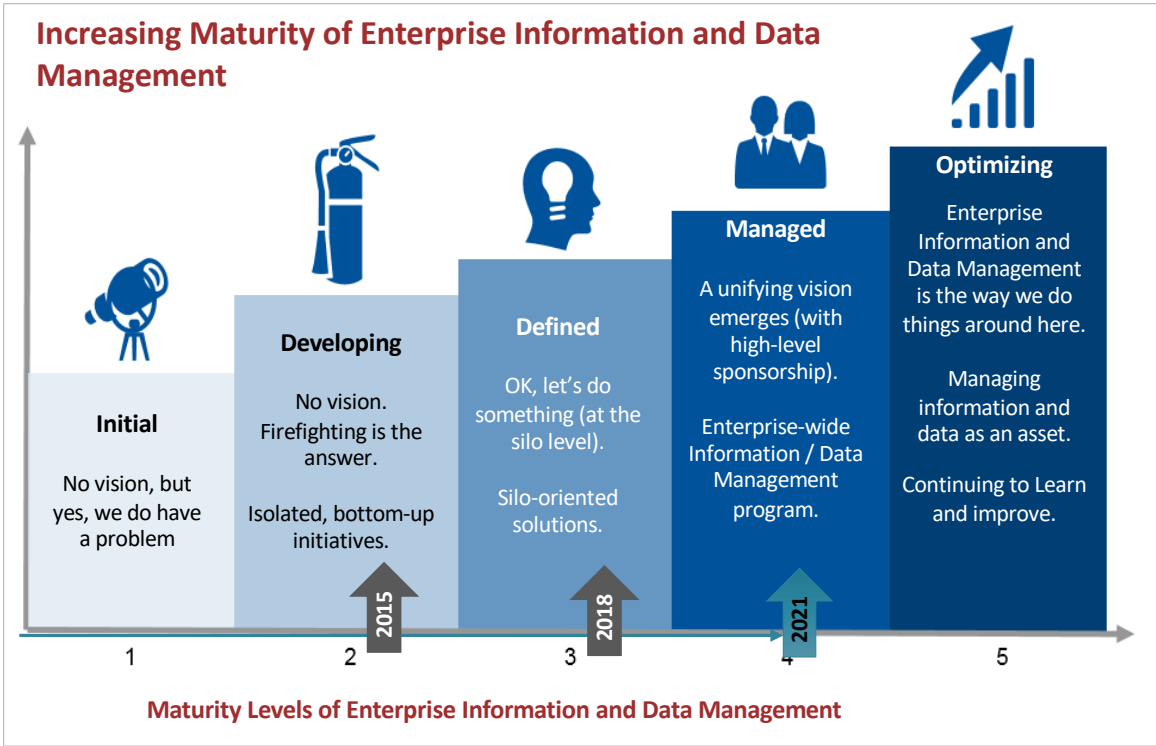
Jeremy Farr, General Counsel, Bank of Canada

## Vision

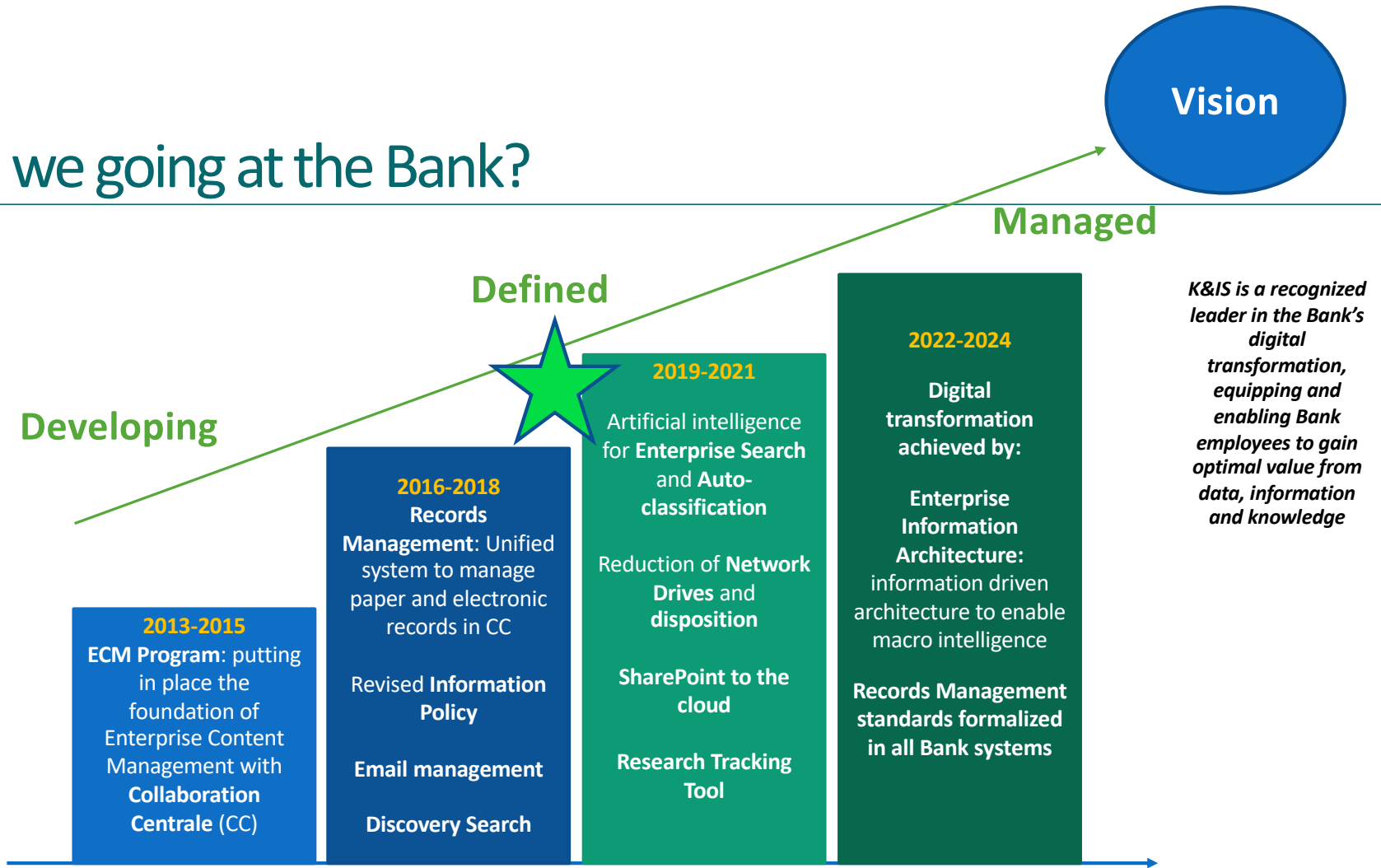
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K&IS is a recognized leader in the Bank's digital transformation, equipping and enabling Bank employees to gain optimal value from data, information and knowledge

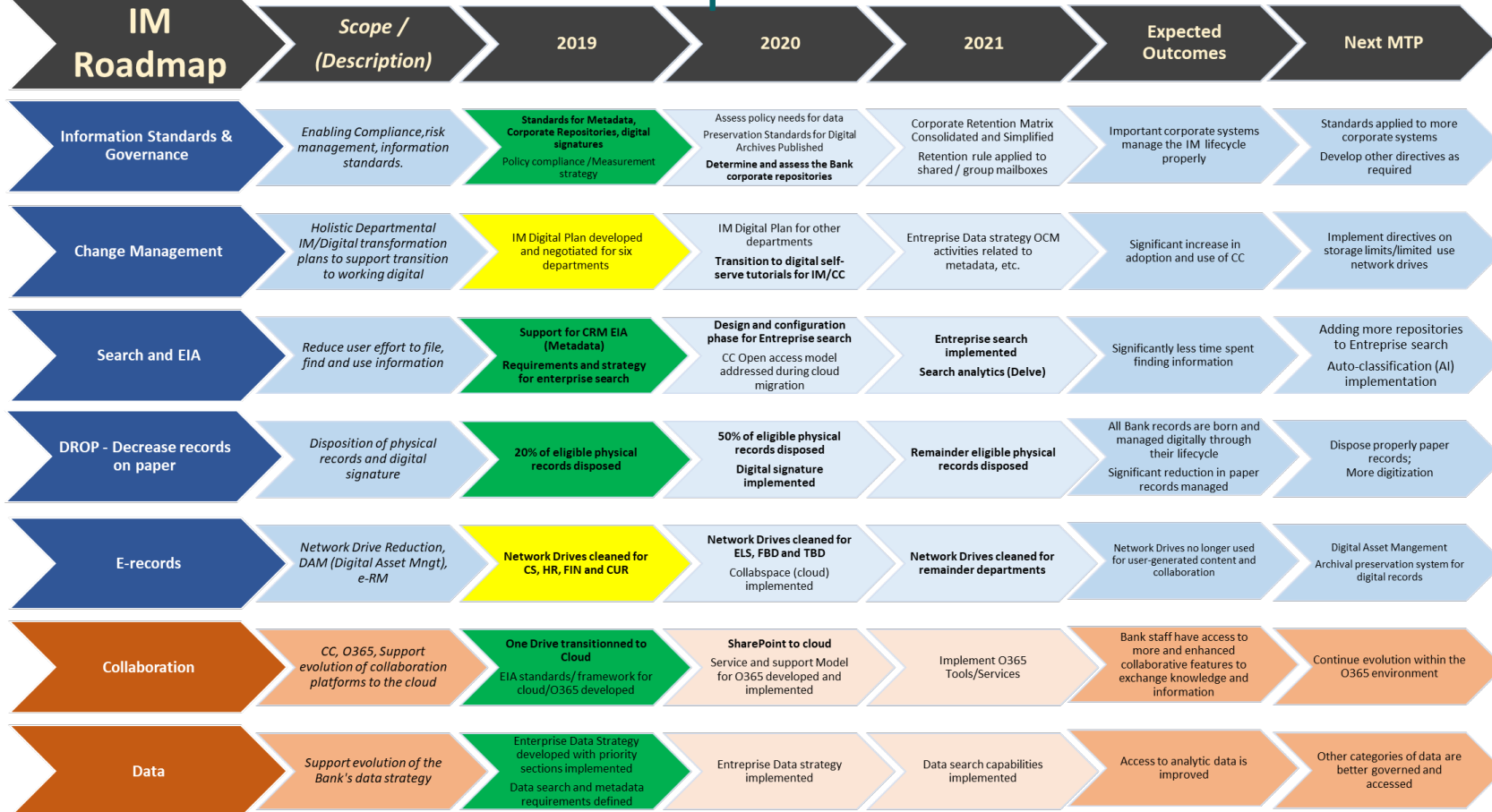
# Information and Data Management Maturity Model



# Where are we going at the Bank?

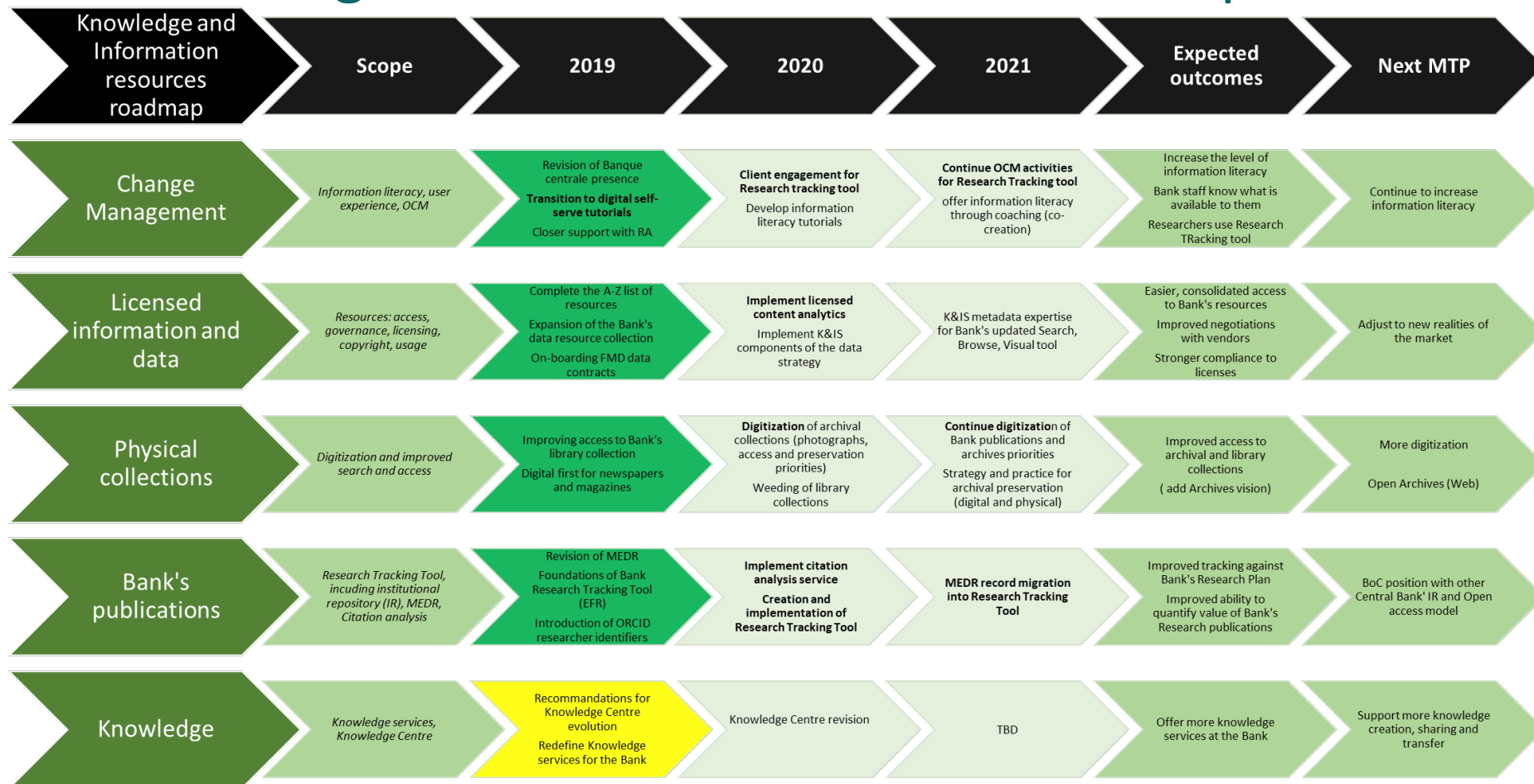


# Bank of Canada IM Roadmap





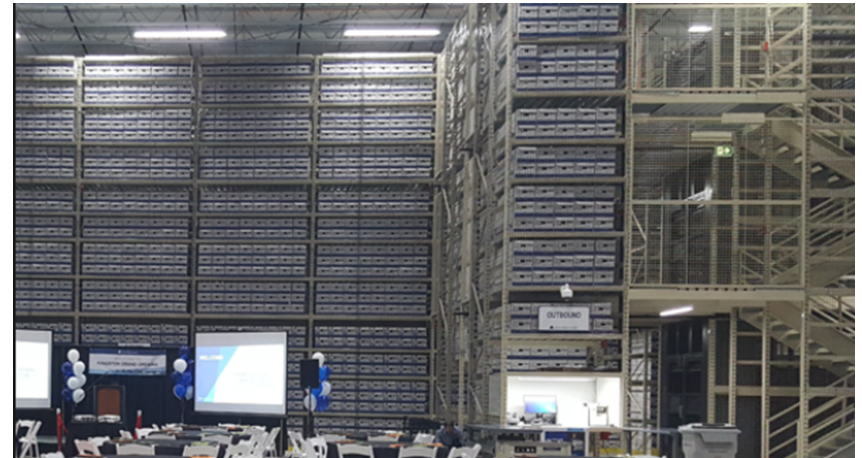
# BOC Knowledge and Information Resources Roamap



## DROP strategy – Decrease records on paper

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- **What?** Establish a strategy to work with all Bank departments to significantly reduced paper records and change their related business process to get to a fully digital lifecycle management of their information
- **Why?** Disposition to reduce storage space, enhance search, better access to information process, etc.
- **When?**
  - 2018: established the strategy
  - 2019-2021: implementation
  - Start with « Low hanging fruit » than the rest



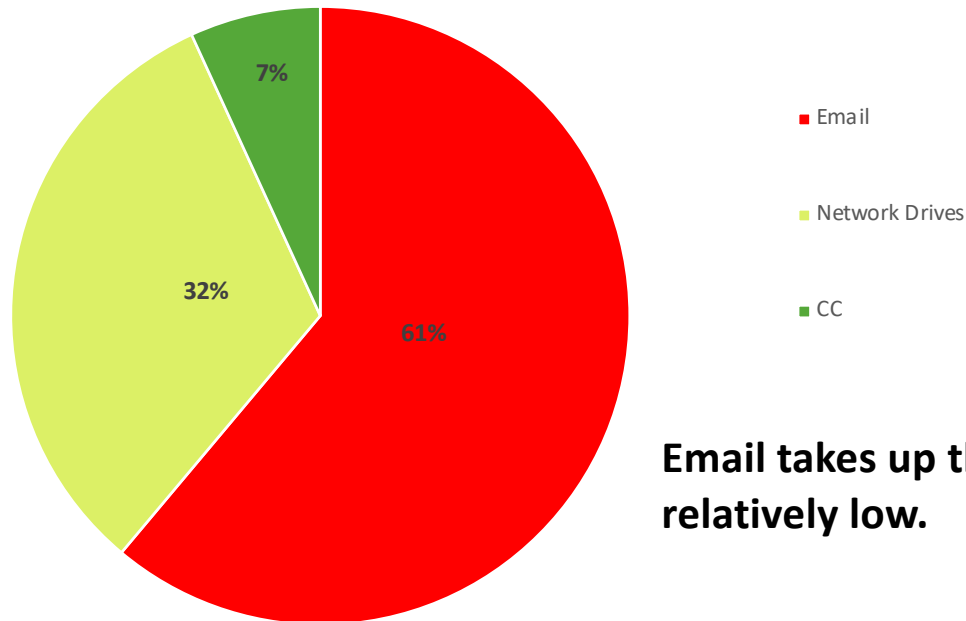
## DROP strategy

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- **How?** Digital transformation plans with each department to change their business processes when necessary
  - Includes:
    - Disposition of eligible records
    - Digitization of archives and very limited active paper records
    - Change management activities
    - Business processes improvement to get to manage fully digital through the entire lifecycle

## Where we were: Dec 2017

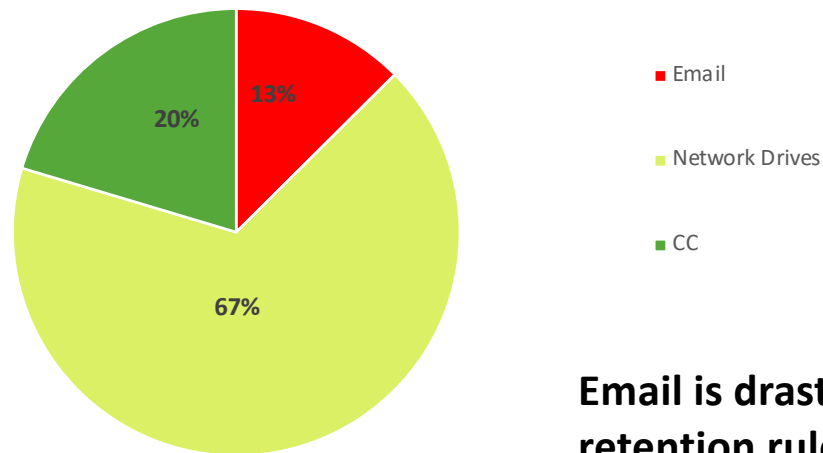
Space used (TB) for user generated content on Email, Windows Network Drives (user files) and CC



**Email takes up the most space; CC usage is relatively low.**

## Where we are: January 2019

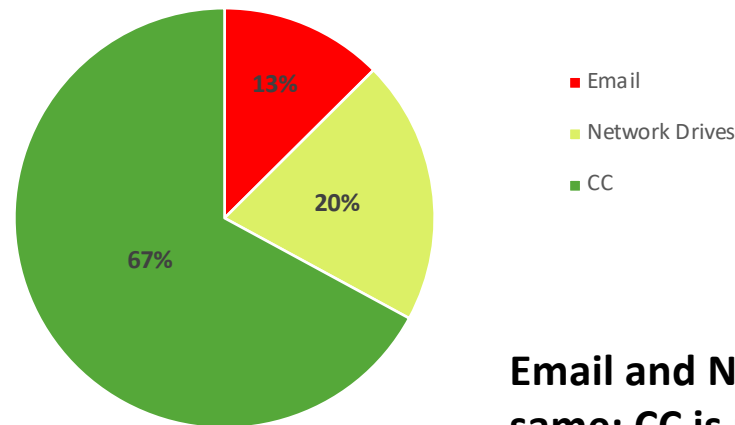
Estimated space used (TB) for user generated content on Email, Windows Network Drives (user files) and CC



**Email is drastically reduced via the 1-year retention rule; Network Drives now take up the most space; CC continues to grow.**

## Where we will be: December 2021

Estimated space used (TB) for user generated content on Email, Windows Network Drives (user files) and CC



**Email and Network Drives are roughly the same; CC is now the primary storage location for documents – anything remaining on the Network Drive is considered inadmissible to CC.**

# Email management

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- **What?**

- Introduction of a one-year retention rule to individual Outlook accounts and a new tool to transfer email in our EDRMS (official corporate repository)

- **Why?**

- Forced transfer of corporate records to corporate repositories
- Improve search for ATIP and other legal purposes
- Reduced maintenance and recovery of network environment



Source: Pixabay

# Email Management

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## ■ **When?**

- 2017: environmental scan, option analysis, approval and planning
- 2018: One year for change management strategy with Bank staff and email standard definition
- 2019: January 1<sup>st</sup>, retention rule applied

## ■ **How?**

- Started with the Leaders
- Tailored presentations by department to all staff
- Methodology to assess and support each department through the year
- Email standard and directive



# Success!

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## **| We did it: the new email rules are up and running**

January 16, 2019

The Bank's new email retention rules took effect this month, and we're pleased to report that the process of cleaning up over 2,200 mailboxes is now complete.

On January 3, we launched a process to delete all emails more than a year old. It rolled out smoothly and the final numbers are impressive:

### **63 million emails deleted**

If we printed and stacked each one beside Mount Everest, our email pile would be more than 1 km taller.

### **24 terabytes freed up**

That's 40 straight years of streaming music.

### **Seven calls to ITS**

That's only 0.3% of users!

# Network Drive Content Remediation

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- **What?** Reduction of Network Drives by transferring active and semi-active documents to our EDRMS where retention rules will be applied and disposition of eligible content after a risk-based methodology will be done. Only non eligible format will be allowed on network drives
- **Why?**
  - Ensure corporate records can be truly managed for their entire lifecycle
  - Reduced maintenance and recovery of network environment
  - Forced usage of formal corporate repositories (e.g. EDRMS)

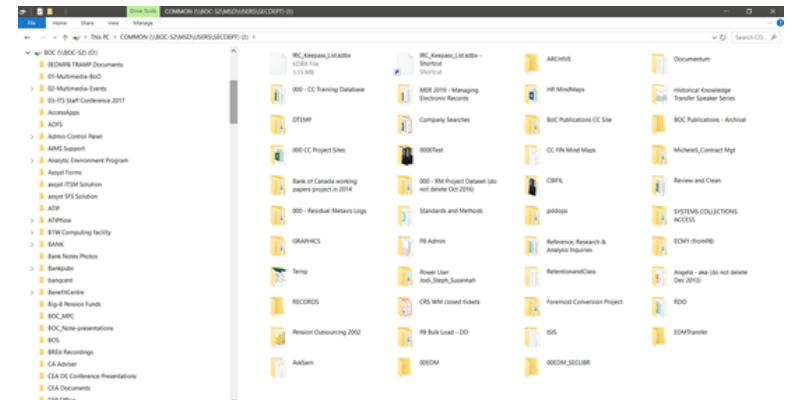
# Network Drive Content Remediation

## ■ When?

- Started slowly in 2017
- 2018: Revised methodology, development of the risk-based approach and pilot for tools and processes
- 2019-2021 Dedicated project – exploring using AI

## ■ How?

- Assessment of content
- Disposition of eligible content
- Migration of content on EDRMS
- Definition of a network drive standard and directive



# Data catalog

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- What?

- Built a data catalog to inventory all data objects available at the Bank for the Analytic Environment and increase the information available to describe these data assets to improve findability e.g. search experience

- Why?

- No real inventory available
- Volume of data exponentially growing
- Nature of the data acquired and created is increasingly varied (source, type and format)
- Data infrastructure mainly for time series data e.g. data warehouses

# Data catalog

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## ■ When?

- Started In January 2019 as a Data search initiative
- 2 years to implement by end of 2020

## ■ How?

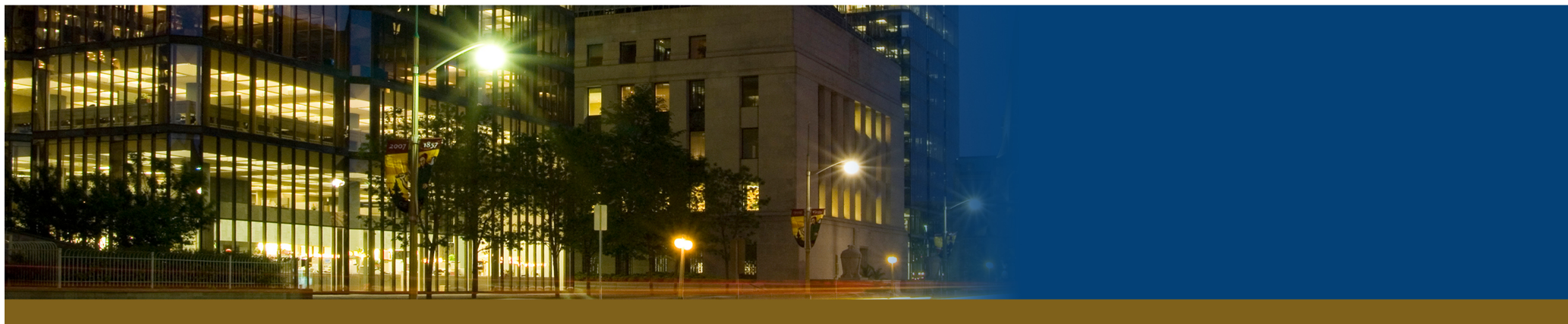
- Proof of concept for the first 3 months using current library system
- Select and establish a metadata schema
- Find, select and implement a metadata repository and search tool
- Define and establish priorities of data objects to be catalogued
- Automate wherever possible (uploading and applying metadata)

## ...and many others

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- Digital authorization / signature
- Enterprise Search and auto-classification (AI)
- Research Tracking tool and Institutional Repository for Bank research outputs
- Digital preservation assessment and strategy
- Digitization of Bank's collections (Library, Archives and records)
- Development of policy instruments to mitigate and control Bank's data and information assets like Corporate repository standard, Enterprise metadata standard, Transitory information directive and standard, etc.

Questions, advices and feedback are welcome  
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# Bank of Canada Information Policy (2017) - Principles

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## Why dealing with the print legacy

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- Continue to carry a heavy burden
- Difficult to find critical information
- Can not continue to have time and resources devoted to these activities
- Stop the too long transition of print vs digital
- Still need to be considered in ATIP requests
- It is courageous