



NOVEMBER 2019

DIGITAL TRANSFORMATION

Steam

Electricity

Electronics & IT

Digital



1764

1870

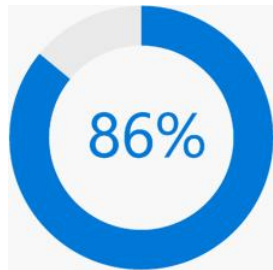
1969

2016

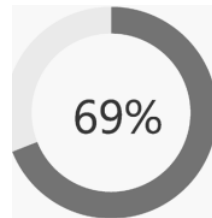


86% of CEOs consider digital their #1 priority

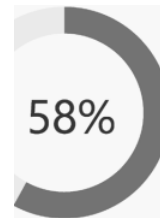
TRENDS THAT WILL TRANSFORM BUSINESS OVER THE NEXT FIVE YEARS



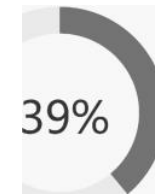
Technological
advances



Demographic
shifts



Shift in global
economic
power



Resource scarcity
& Climate
Change



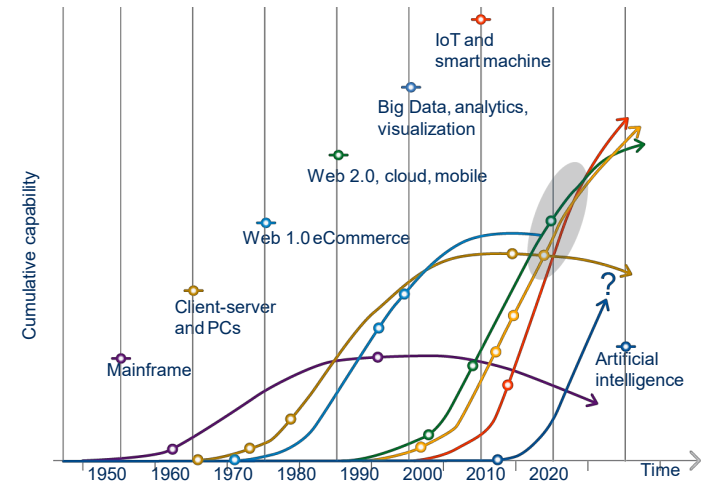
Urbanization

THE COMBINATORIAL EFFECTS OF TECHNOLOGY ARE ACCELERATING CHANGE

8 billion devices are now connected to the internet; by 2030, that number is forecast to grow to 1 trillion.

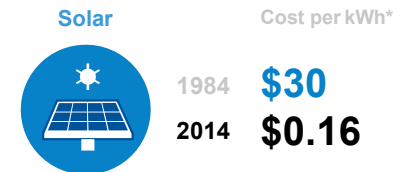
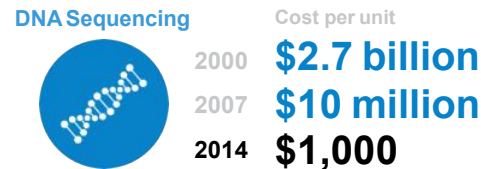
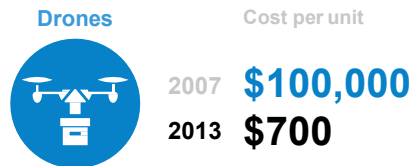
"Combinatorial" effects, where the capability of technologies working in tandem far exceed their capabilities when deployed separately.

The combinatorial effects of base technologies, such as mobile, cloud, sensors, analytics and the Internet of Things (IoT), are accelerating progress exponentially. Technology is the multiplier.



Source: World Economic Forum/Accenture analysis

Examples of the falling cost of key technologies



* kilowatt hour

To find out more about the DTI project, visit <http://reports.weforum.org/digital-transformation>

SEVEN TECHNOLOGIES ARE TRANSFORMING THE INDUSTRIES COVERED BY DTI RESEARCH

DTI research to date has identified seven key technologies that are expected to have the most impact among the industries analysed.

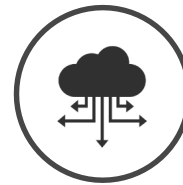
Note: This list is not comprehensive and does not include all the emerging technologies (e.g. blockchain) that were identified in only one or two use cases across DTI industries to date.



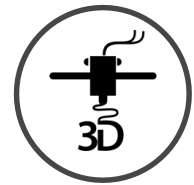
Artificial intelligence



Autonomous vehicles



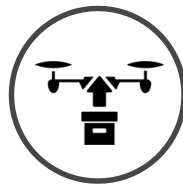
Big data analytics and cloud



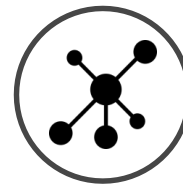
Custom manufacturing and 3D printing



Internet of Things (IoT) and connected devices



Robots and drones



Social media and platforms

To find out more about the DTI project, visit <http://reports.weforum.org/digital-transformation>

Customer centric approach

Customer insights

- Explore data insights
- Establishment of data strategy
- Predictive modeling
- Calculate Return on customers
- Life Time value of customers
- Loyalty and retention analysis
- Fraud detection
- Forecasting
- Social Media engagement
- Customer testing
-

Business strategy

- Establish link to Corporate strategy
- Customer value case – not business case..
- Digital strategy and digital transformation
- Fit/GAP and road mapping
- Create your digital customer radar
-

Business re-design

- Business process alignment
- Data model
- Organizational model
- Customer touch points model
- Marketing/communication model
- Sales and service model
- Infrastructure model
- Service, experience, solution and product innovation
-

Competency build up

- Project definitions
- Setting of metrics KPI
- Attracting core competencies
- Development plan
- Organization and project method
-

Implementation and transition

- Program and project execution
- Organizational change management
- Infrastructure transition
- Data and process ownership
- Ongoing quality assurance
-

The Five Characteristics of Customer-Centric Companies

1. They conceive of themselves **not as a group of products**, services, or functions, but as **a portfolio of customers**.
2. They know how much **money they make or lose with each of their customers** or customer segments, and they **understand why**.
3. They understand the **different needs of different customers and** deliver knockout value propositions that others cannot match.
4. They organize their businesses into customer segment business units to establish **clear ownership of the customer experience and accountability** for the financial performance of each customer business unit.
5. They create a competitively unassailable customer innovation advantage based on a customer **R&D model grounded in continual experimentation** at key customer touch points.

Digital Transformation at Conservation Halton

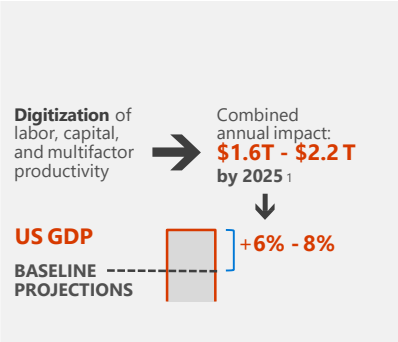
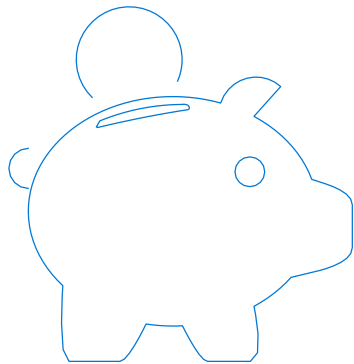
FOCUS ON DT

- Tied to corporate strategy
- Customer-centric approach
- Right talent to implement goals
- Innovation culture
- Effective technology adoption

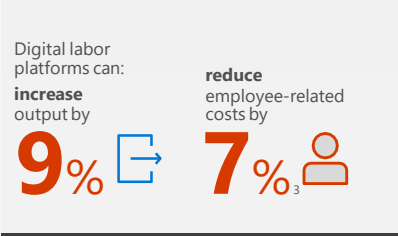
What is DT for the public sector?

- Barriers to DT?
- Why did we FAIL?
- Talent evaluations
- Driver for approach
- Strategy by yourself : outside-inside view

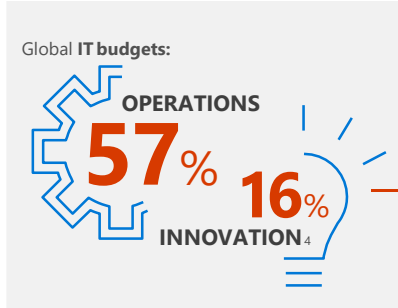
Digital transformation and cost savings priorities



gov.uk saved **63M** in public spending within a year of its launch ²



Digitalization drives down costs



By 2018: **1/2** of all apps developed will incorporate **artificial intelligence** ⁵

By 2020: **60B** in savings garnered for U.S. enterprises ⁶



Investments in innovation pay off in efficiency

TECHNOLOGIES are moving faster than the **EXPERTISE** needed to exploit them can be disseminated to the workforce ⁷

ACCESS INFRASTRUCTURE DIGITAL LITERACY + DIGITAL TOOLS

encouraging workers to participate in the **digital economy** ⁸

By 2018, **30%** of organizations will formalize **workforce digital literacy strategies** to improve business outcomes and employee engagement ⁹

Future-ready your workforce through digital literacy

¹ James Manyka. Digital America: A tale of the haves and have-mores. McKinsey. January 12, 2016.
² £1.0bn saved in 2012/13. Efficiency and reform 2012/13 summary report, UK Cabinet Office 2013.
³ Susan Lund et al. Managing talent in a digital age. McKinsey. February 29, 2016.

⁴ Marcus Shingles et al. Tech Trends 2016: Innovating in the digital era. Deloitte. February 22, 2016.
⁵ John Dodge. Who's in charge of AI in the enterprise? CIO. February 15, 2016.
⁶ Jim Reposa. Rounding Up: Virtual Machine Sprawl With Private Cloud. Aberdeen. January 4, 2016.

⁷ Bill Snyder. The 6 Hottest New Jobs in IT. CIO. March 7, 2016.
⁸ James Manyka. Digital America: A tale of the haves and have-mores. McKinsey. January 12, 2016.
⁹ Gevin Tay and Achint Aggarwal. Examining the Promise and Progress of Digital Workplace Programs Globally. Gartner. January 27, 2016.

Digital Transformation at Conservation Halton: missing links



Leveraging value through strategic partnership

- 1 Leverage global experience
- 2 Scalable best practices
- 3 "From the outside in" perspective
- 4 Improved efficiency (ie. DAM platform)
- 5 Better user experience (ie. eCommerce platform)
- 6 Enhanced customer satisfaction
- 7 More effective outreach

Finding value in strategic partnership

CAO priority for 2019 and beyond

Connected with a global technology company

Assessment of Technology Landscape

Engaged in a year long process of due diligence to find needs

Set goals for business units

Matrix and criteria's were created

Identified steps forward on the road of DT

Our HOPE :

More efficient

More agile

More capable

More productive through digital transformation and automation

LATORNELL 2019

Digital Transformations –
Building Capacity and Efficiency
Conservation Halton & TCS Partnership

November 19, 2019

TCS & Conservation Halton Confidential



TCS in Canada

- Among the “Top 10” largest IT Services Providers in Canada (Source: IDC)
- Leading job creator in Canadian IT Services
- Fastest growing Technology Services firm in Canada
- Servicing the Canadian marketplace for 28+ years (since 1991)
 - 5,300+ Associates in Canada & Servicing over 125 Canadian enterprises
- TCS has invested significantly in Canada over the last three years through the creation of innovation labs, growing & reskilling its workforce and its ongoing work with schools to promote STEM
- In 2014, TCS Canada rolled out its STEM education program called 'goIT'. We have since engaged with over 7,000 students in over 18 cities nationwide

Offices

- Toronto
- Montreal
- Calgary
- Vancouver
- Edmonton
- Regina



Canada Accolades

Achievers 50 Most Engaged Workplaces

Top Employer in Canada

Top Employers Institute (2016-2019)

Best Recruitment Campaign

Canada HR Reporter

Canada's Top 100 Employer for Young People

Most Innovative Use of HR Technology

Most Effective Recruitment Strategy

Canadian HR Awards (Finalist 2017)

Best HR Communication Strategy Canadian

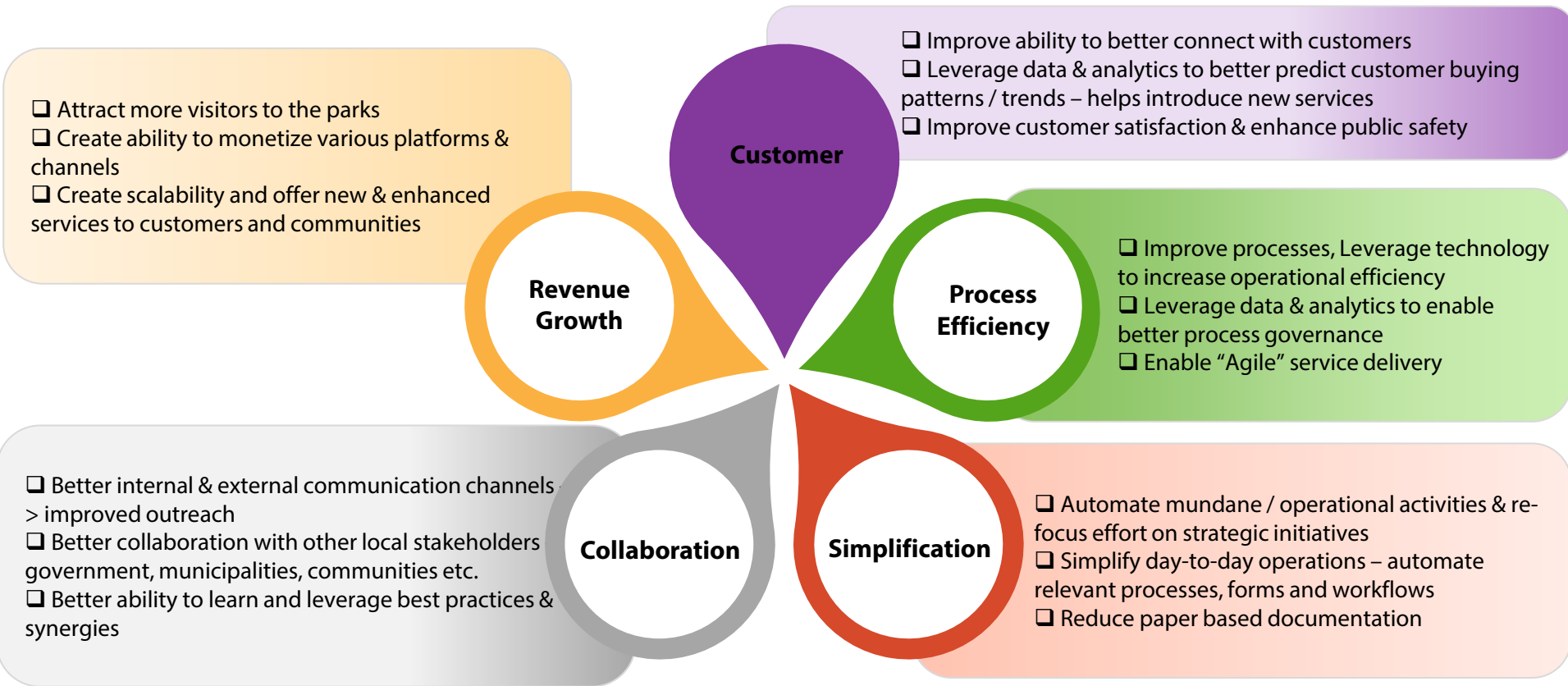
HR Awards (Finalist – 2017 & 2018)

Best Talent Management Strategy

Canadian HR Awards (Finalist - 2018)



Digital Transformation – Key Objectives / Focus Areas



Technology Landscape Assessment:

- Understand current landscape
- Identify Opportunities for Improvement, aligned with Conservation Halton's (CH) strategic goals
- Identify investments needed vs benefits to be accrued
- Create short, medium & long term roadmap enabling transformation, leveraging technology

Due Diligence for eCommerce & Digital Content (Asset) Management Platforms:

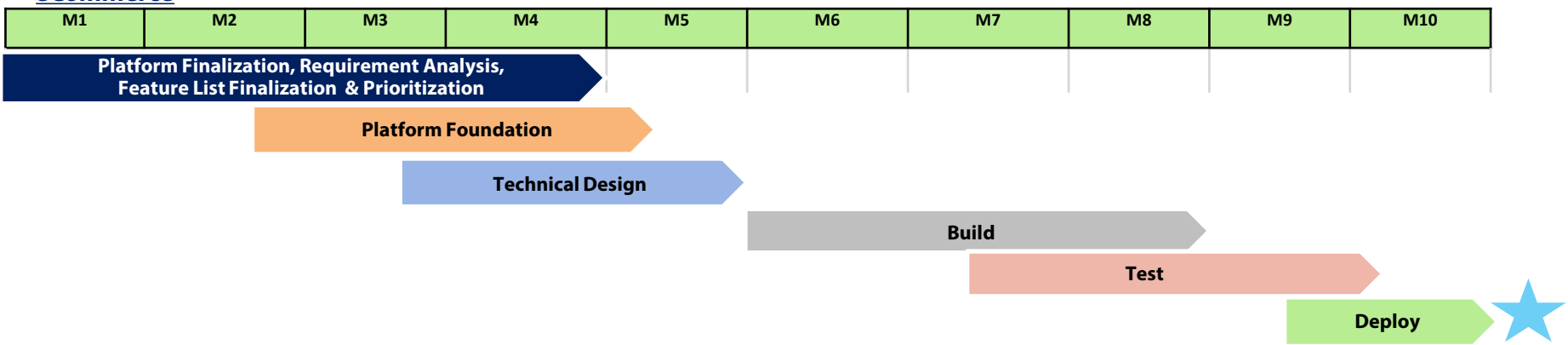
- Evaluate current eCommerce platform
 - ✓ Analyze the current platform vis-à-vis CH's business needs & vision
 - ✓ Plan to transform the platform and enhance customer centricity
- Evaluate and recommend a Digital Content (Asset) Management platform to manage the large volume of paper assets (maps, plans etc) at CH
 - ✓ Identify the content management platform
 - ✓ Plan to digitize, migrate and manage contents / assets (maps, plans etc.) on this platform

Due Diligence for CH's Website Consolidation & Modernization:

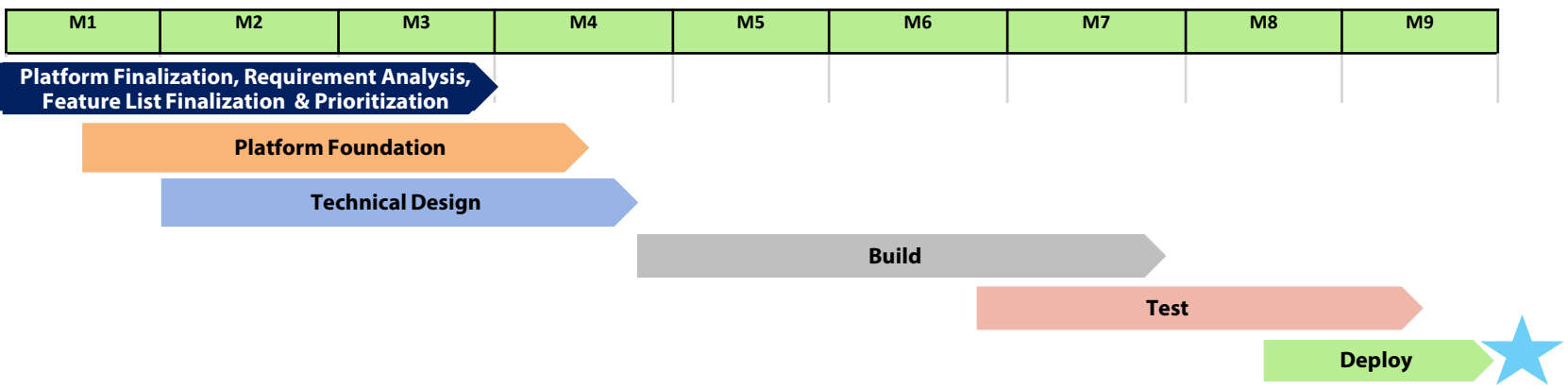
- Assess effectiveness of the current websites, evaluate current processes, identify areas of improvement
- Plan to improve usability & accessibility of the websites
- Build roadmap to consolidate & modernize the websites, focusing on user experience

Proposed Implementation Plan – eCommerce & Digital Asset Management

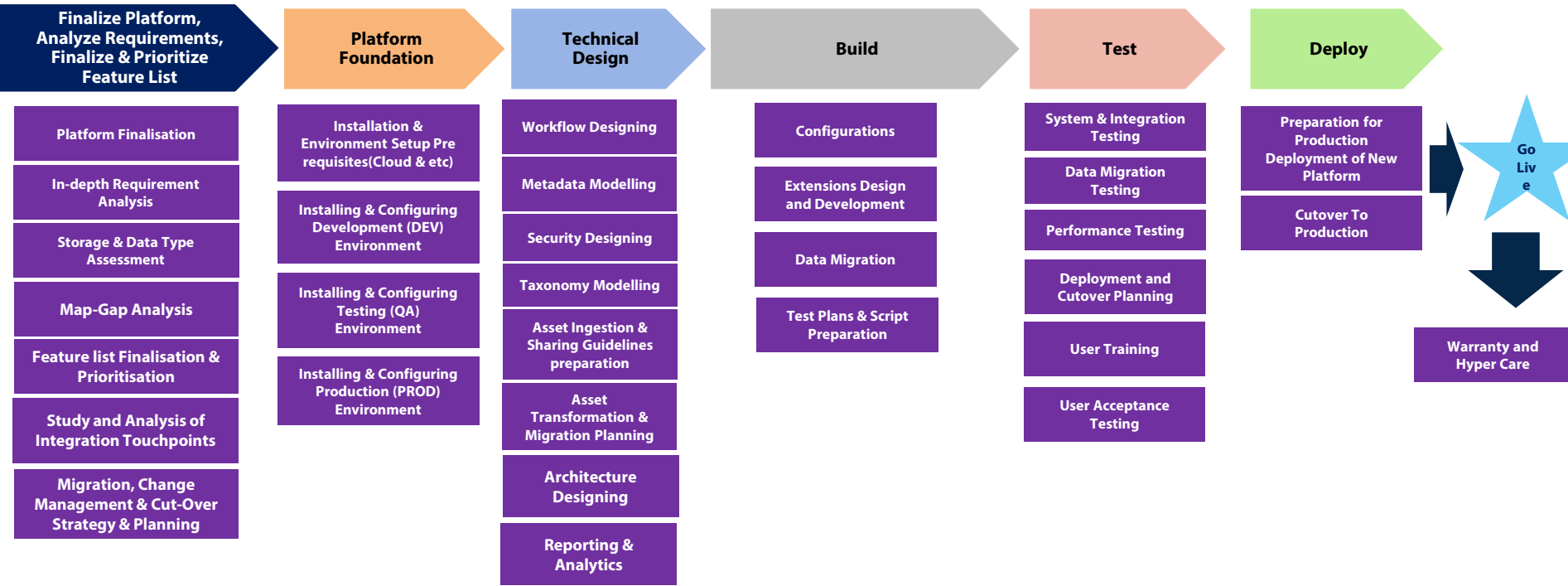
eCommerce



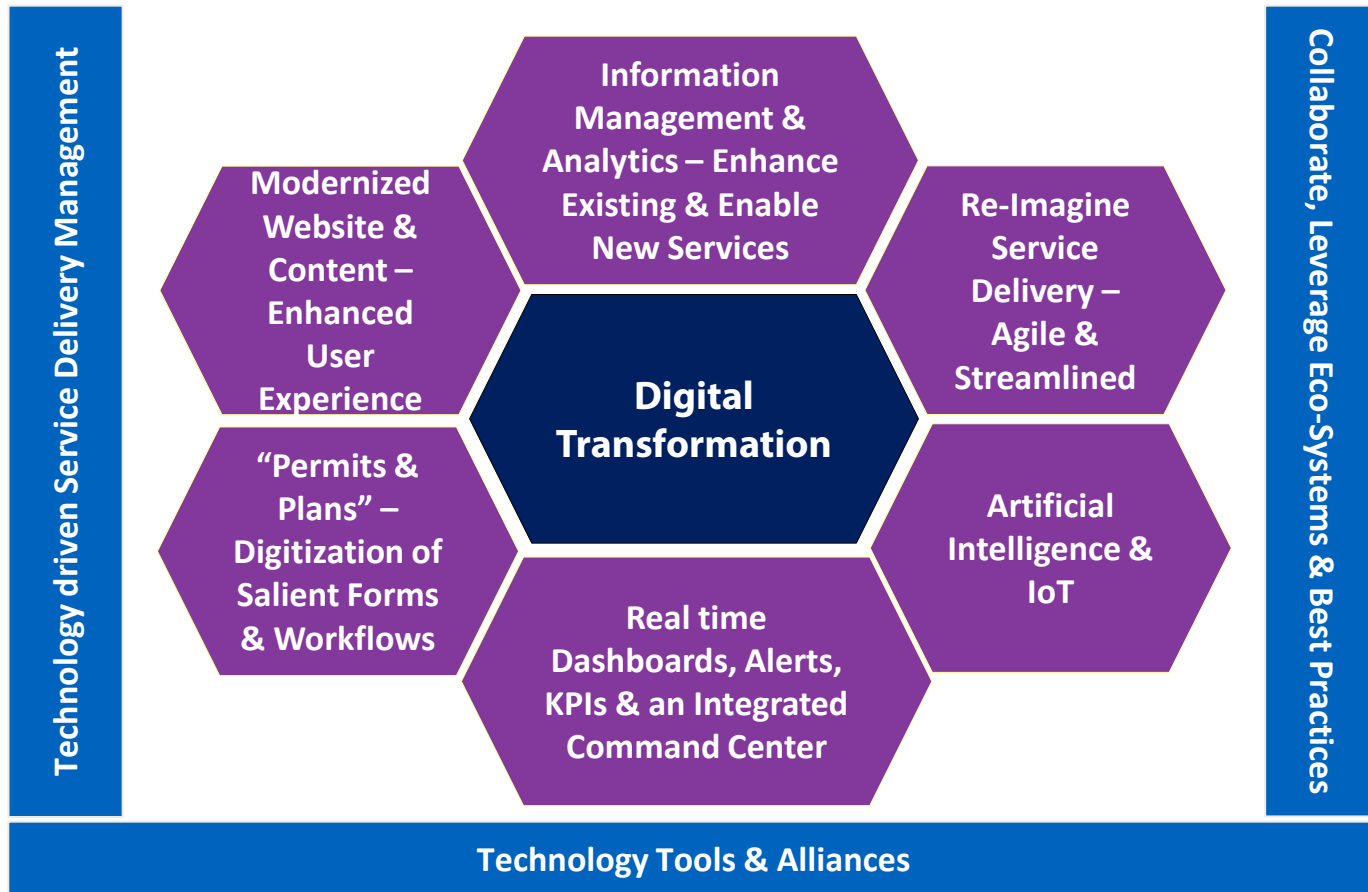
Digital Asset (Content) Management



Typical Project Activities (Sample List)



Digital Transformation – Vision



TCS in Canada (Contd.)



Digital Transformation at Conservation Halton: projects

Improving data management processes

Simplifying the technology landscape

Enhancing the client experience

Empowering workplace productivity

Enabling data sharing, learning and collaboration

Thank you.