

# EnviroApps



## Enhancing Safety and ESG Ratings through Digital Shipping Documents



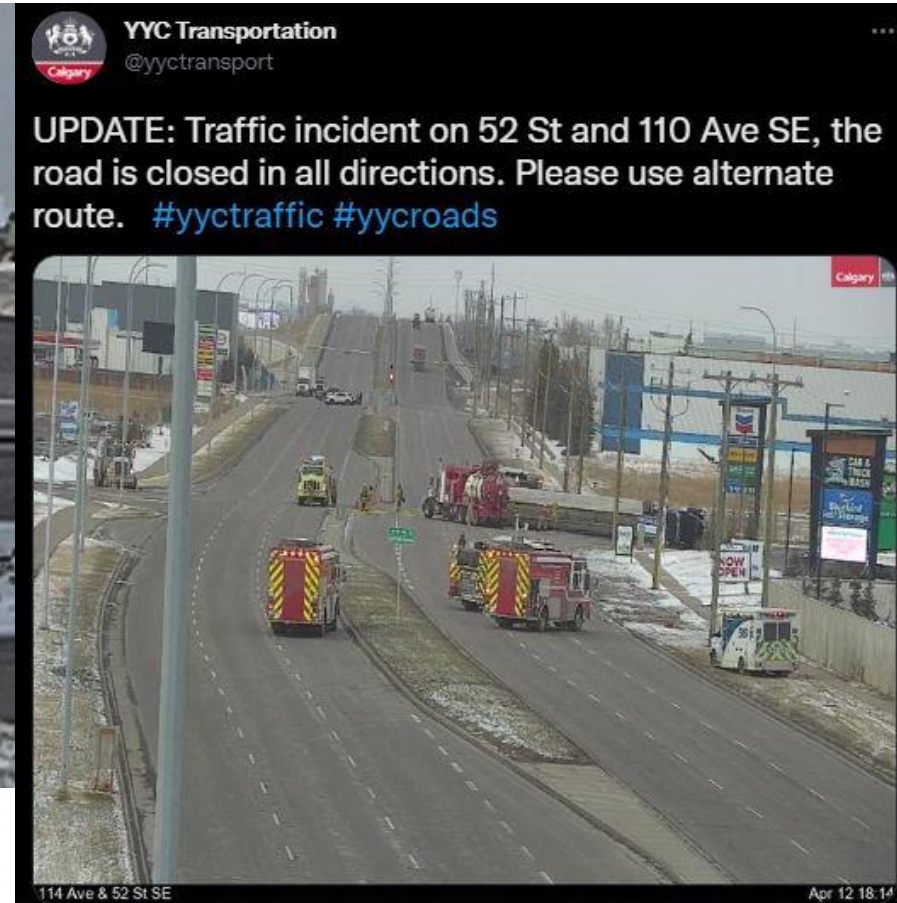
Amit Bhargava, Co-founder, EnviroApps Inc.

[www.enviroapps.ca](http://www.enviroapps.ca)



An overturned truck is seen at 52 Street at 110 Avenue S.E. in Calgary's East Shepard Industrial area on April 12, 2022.

Photo Credit: CTV News and Global News



# WHAT'S WRONG?

- ▶ Location of truck being monitored?
- ▶ Paper based Shipping Document
  - ❖ Complete?
  - ❖ Legible?
  - ❖ Retrieve?
  - ❖ Accurate?

# WE NOW LIVE IN A DIGITAL WORLD



**EnviroApps**

#digital transformation

#paperless

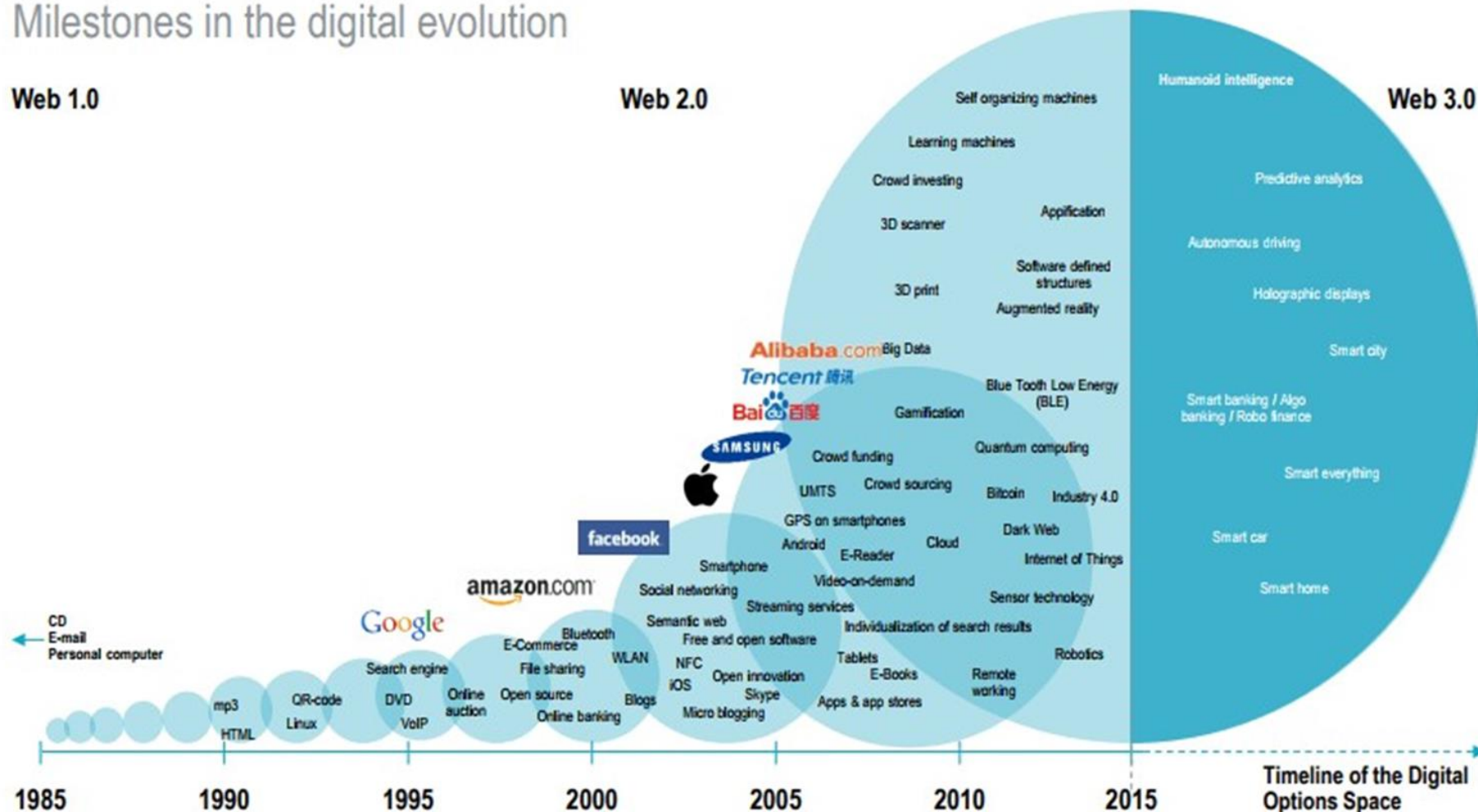
# Digital Transformation has changed everything and is set to continue, as digital options follow an exponential growth path

## Milestones in the digital evolution

Web 1.0

Web 2.0

Web 3.0





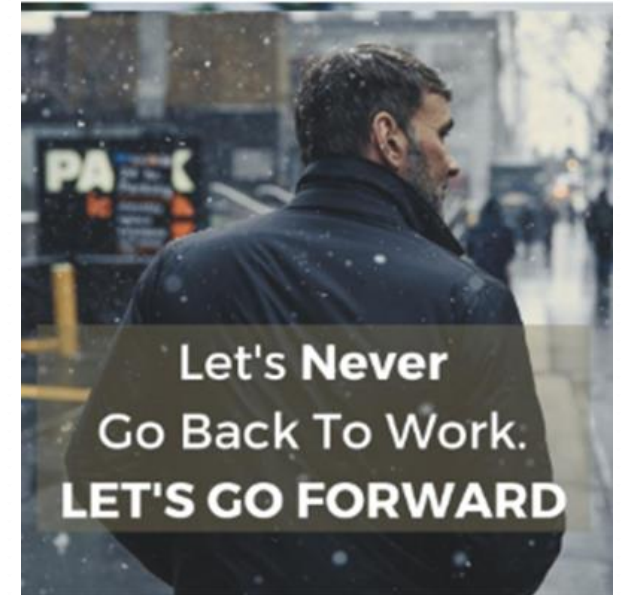
- ❖ ESG Disclosure
- ❖ Efficiency
- ❖ Remote Work is here to stay
- ❖ Covid-19

➤ Paper is obsolete!

source: tradingeconomics.com

# ENVIRONMENTAL/REGULATORY COMPLIANCE

- ▶ Most reporting submissions are digital
- ▶ Paper-based plans/processes:
  - ❖ ***Bill of Lading/ Truck Tickets***
  - ❖ ***Hazardous Waste Manifesting***
  - ❖ ***Transportation of Dangerous Goods (TDG)***
  - ❖ ***Water Use Tracking***



A) GENERATOR (CONSIGNOR)				B) TRANSPORTER (CARRIER)															
COMPANY NAME:		OPERATOR/BA CODE (GENERATOR):		COMPANY NAME:				CITY:		PROV.:									
ADDRESS:				ADDRESS:				POSTAL CODE:											
CITY:		PROV.:	POSTAL CODE:	DATE:		UNIT NO.:		TELEPHONE:		FAX:									
SOURCE SITE LOCATION (SURFACE LOCATION):				Certification - I declare that I have received wastes as offered by the Generator in PART A for delivery to the Intended Receiver and that the information contained in PART B is correct and complete.															
LICENCE TYPE (W.P.F.) & LICENCE NUMBER: ▼				NAME (PRINT):				SIGNATURE:											
INTENDED RECEIVER				C) RECEIVER (CONSIGNEE)															
COMPANY NAME:		OPERATOR/BA CODE (GENERATOR):		COMPANY NAME:				CITY:		PROV.:									
ADDRESS:				ADDRESS:				POSTAL CODE:											
CITY:		PROV.:	POSTAL CODE:	DATE:		UNIT NO.:		TELEPHONE:		FAX:									
RECEIVING SITE LOCATION:				RECEIVING SITE LOCATION: OPERATOR CODE/BA CODE:															
WASTE CODE	DOW# or NON-DOW	UN NUMBER	TDG SHIPPING NAME (DOW)/COMMON NAME IF NON-DOW	CLASS	PACKING GROUP	QUANTITY SHIPPED	UNITS	PACKAGING NO.	PACKAGING CODE	HANDLING CODE	QUANTITY RECEIVED	UNITS	OIL %	WATER %	SOLID %	HANDLING CODE	TRANS DECOR		
	▼						▼					▼					▼		
	▼						▼					▼					▼		
	▼						▼					▼					▼		
	▼						▼					▼					▼		
SPECIAL HANDLING/EMERGENCY INSTRUCTIONS:											IF HANDLING CODE '01', '02' OR '21' SPECIFY:								
DATE SHIPPED:				TIME SHIPPED:				DATE RECEIVED:				TIME RECEIVED:							
I declare that the information in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks properly affixed or displayed on them, and are in all respects in proper condition for transport according to the Transportation of Dangerous Goods Regulations.											TELEPHONE / CELLULAR:		IDENTIFY DISCREPANCIES BETWEEN WASTE RECEIVED AND DETAILS LISTED IN PART A IN THE COMMENTS SECTION:  Certification - I declare that the information contained in PART C is correct and complete.						
NAME OF AUTHORIZED PERSON (PRINT):				SIGNATURE:				24HR EMERGENCY NO.:											
COMMENTS											NAME OF AUTHORIZED PERSON (PRINT):								
											TELEPHONE:								
											SIGNATURE:								

SEE BACK FOR FORM INSTRUCTIONS



# HAZARDOUS WASTE MANIFESTS

- ▶ Directive 58 Requirements (Updated recently):
  - ❖ Tracking waste from cradle to grave
  - ❖ Penalties (\$50k individual; \$500k corporations)
  - ❖ Electronic Manifests allowed since 2015
- ▶ Companies spend \$25-\$50 per manifest – Generators and Receivers

# REMEDICATION & WASTE MANIFESTS

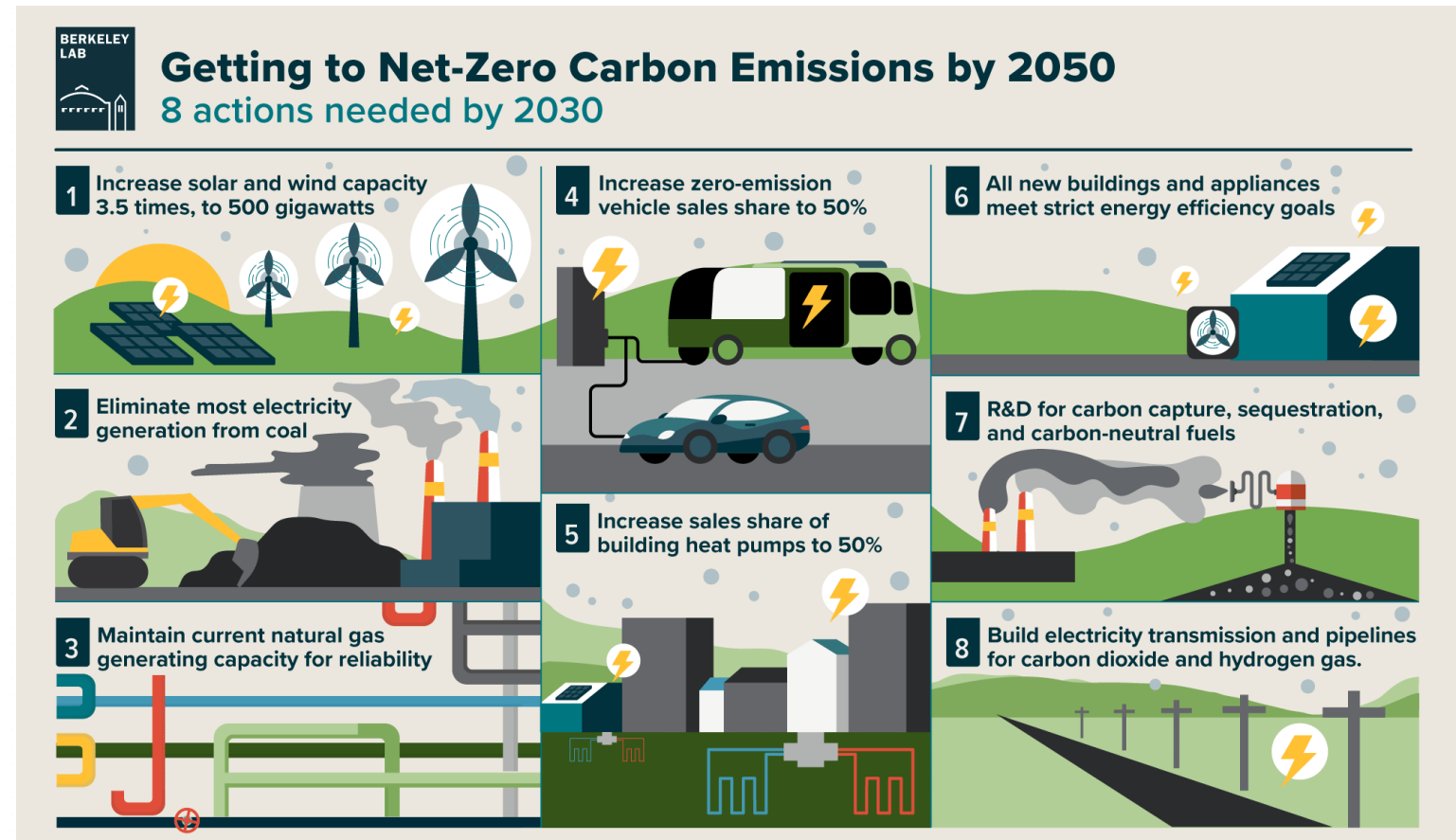
- ▶ 2022 is going to be a super high activity year for Remediation projects
- ▶ Lower cost of compliance
- ▶ Automated Project activity and cost updates
- ▶ Efficiency tools will be key to managing workloads

# CHALLENGES

- ▶ Systems and processes not fit for purpose
  - ❖ Logistical issues with most of us Working from Home (WFH)
  - ❖ Paper as a transmission pathway during pandemic
  - ❖ Manual data entry subject to errors
- ▶ Inefficiencies/ Archaic/Duplication of efforts
- ▶ Lack of real-time visibility
- ▶ Painful to reconcile documentation for audits
- ▶ Risk of Non-compliance

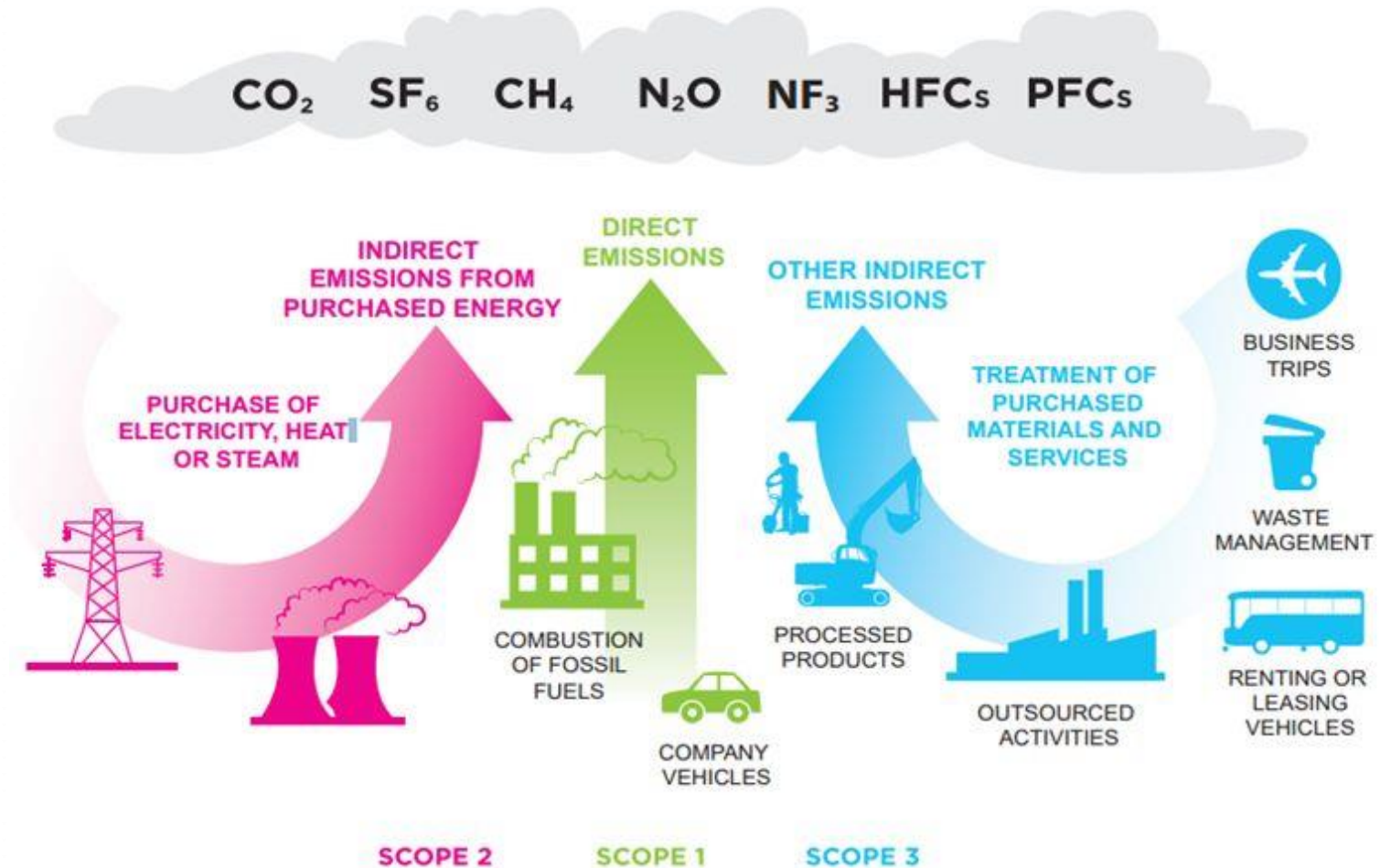
# ESG REPORTING

- ▶ Investor requirements = Access to capital
- ▶ Net Zero Goals



# ESG REPORTING

- ▶ Mandatory ESG Disclosure : 2024
- ▶ Scope 3 Emissions



# ESG REPORTING

## Disclosure 306-2

### Management of significant waste-related impacts

#### Reporting requirements

The reporting organization shall report the following information:

- a. Actions, including circularity measures, taken to prevent waste generation in the organization's own activities and upstream and downstream in its value chain, and to manage significant impacts from waste generated.
- b. If the waste generated by the organization in its own activities is managed by a third party, a description of the processes used to determine whether the third party manages the waste in line with contractual or legislative obligations.
- c. The processes used to collect and monitor waste-related data.

Disclosure  
306-2

#### Guidance for Disclosure 306-2-c

The processes that the organization has in place for collecting and monitoring waste-related data can reflect its commitment to managing waste-related impacts. Such processes can include online data entry, maintaining a centralized database, real-time weighbridge measurement, and annual external data validation.



# THE SOLUTION

- ▶ Cloud based digital solution, accessible anywhere
- ▶ Intuitive, easy to use, mobile friendly
- ▶ Efficient support - regulatory requirements, analytics
- ▶ Accurate information relay to Inspectors or Emergency Responders
- ▶ Comprehensive solution
- ▶ No upfront investment
- ▶ Quick and high ROI



# BENEFITS

- Legibility, completeness and accuracy of information
- Enhanced safety for Emergency Responders
- Emergency notification (as soon as possible) under TDG Regulations
- Gathering of ESG Reporting Data effortlessly
- Visibility to real-time information and automated notifications
- Minimize distraction for Truck drivers while loading/unloading



# MORE BENEFITS

- Time saving for document retrieval during audits/incidents
- Printing paper, recycling, filing and courier costs
- Increased efficiency and no duplication of efforts
- Industry spends about \$25-\$50 per shipping document
- Potential for significant cost savings

# AUTOMATED PROJECT REPORTING

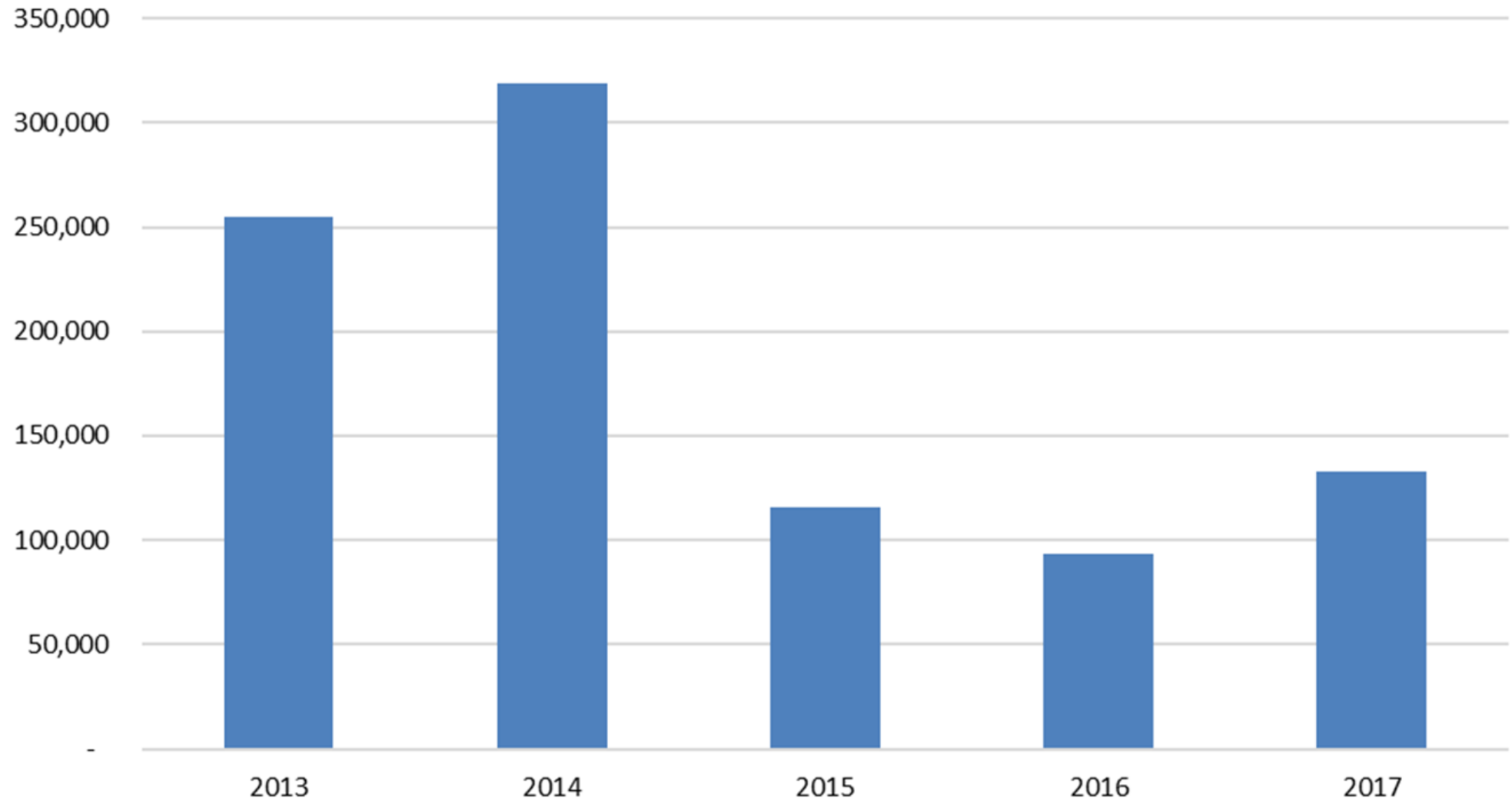
- Daily automated reports in your Inbox
  - Total quantity of remediation material (& type) sent for disposal
  - Type of material disposed; disposal location; means of disposal
  - Costs break-down
  - Time stamps : shipped; received; disposed
- Project Summary Report

# CASE STUDY

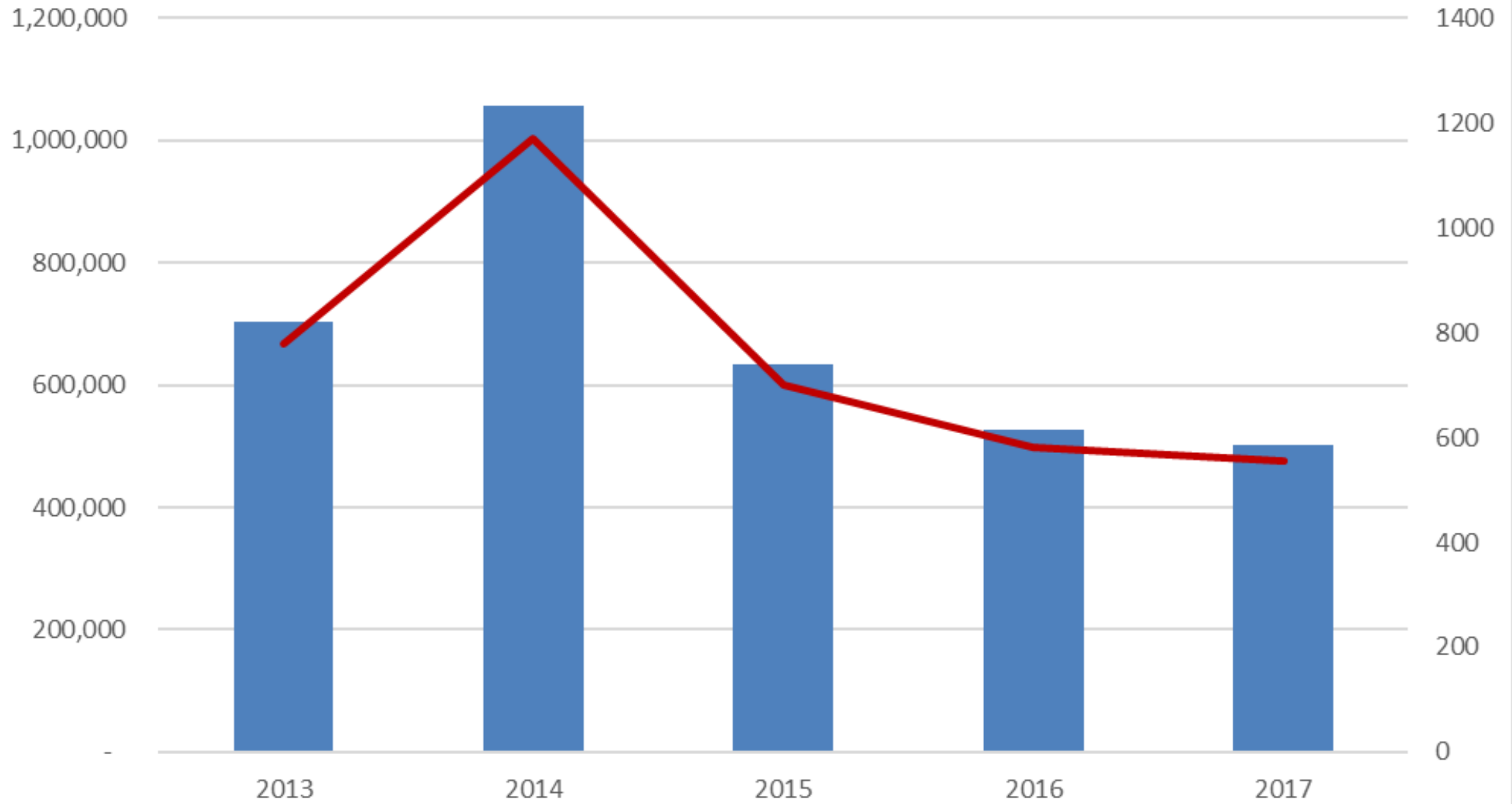
Five years of data, calculated actual distances and compared to optimum distances; potential time savings/ transportation cost savings:

- ▶ More than 30,000 manifests
- ▶ \$190/hr. transportation cost
- ▶ 63% of the time – distance optimized : Opportunity = 37%
- ▶ More than \$900,000 potential savings : ROI > 300%

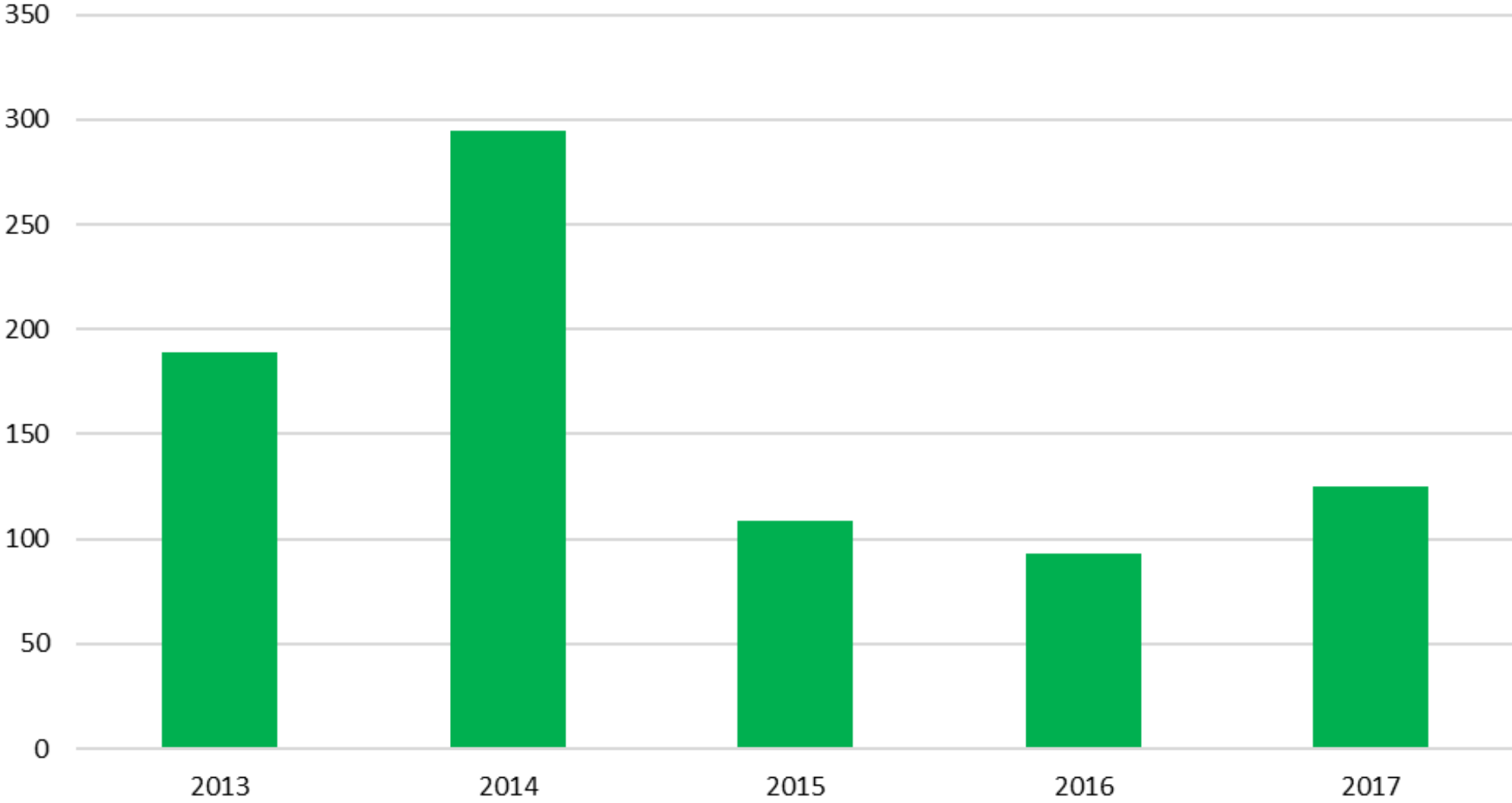
## Potential Transportation Cost Savings (\$)



Distance travelled (km) and GHG emissions (T CO2e)



### Potential GHG emission savings (T CO2e)





# KEY TAKEAWAYS

- ▶ Enhance Safety
- ▶ Better ESG Ratings
- ▶ Make your lives easier!
- ▶ Time to switch over to digital shipping documents is now...





# GLOBAL ENERGY SHOW AWARDS

JUNE 8, 2022  
CALGARY, ALBERTA  
[GLOBALENERGYSHOW.COM/AWARDS/](http://GLOBALENERGYSHOW.COM/AWARDS/)



**I'VE BEEN NOMINATED FOR**  
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