An aerial photograph of a coastal region. On the right side, there is a deep blue bay or ocean. To its left, a river delta flows into the water, characterized by intricate, branching channels of brown and orange sediment. The surrounding land is a mix of dark brown and greyish tones, showing a complex, textured landscape. The overall scene is captured from a high angle, looking down at the natural formations.

**IBM Sustainability Software**

Turn sustainability  
ambition into action

—  
2022



# Our Discussion Today

1. Sustainability Landscape: Urgency and Opportunity
2. Turn Sustainability Ambition into Action
3. IBM Sustainability Software

# Sustainability Landscape and Executive Challenges



# Our surveys confirm:

CEOs face **pressure**, **urgency**, and **uncertainty** as they pivot to action on sustainability

Effective execution requires conviction, a strong **technology and data foundation**, and open innovation

Integrating sustainability and **digital transformation** drives stronger business performance





# Sustainability isn't just about compliance, it's an opportunity to innovate, make a difference, and grow

60%

of CEOs see significant demand from investors for greater transparency on sustainability

64%

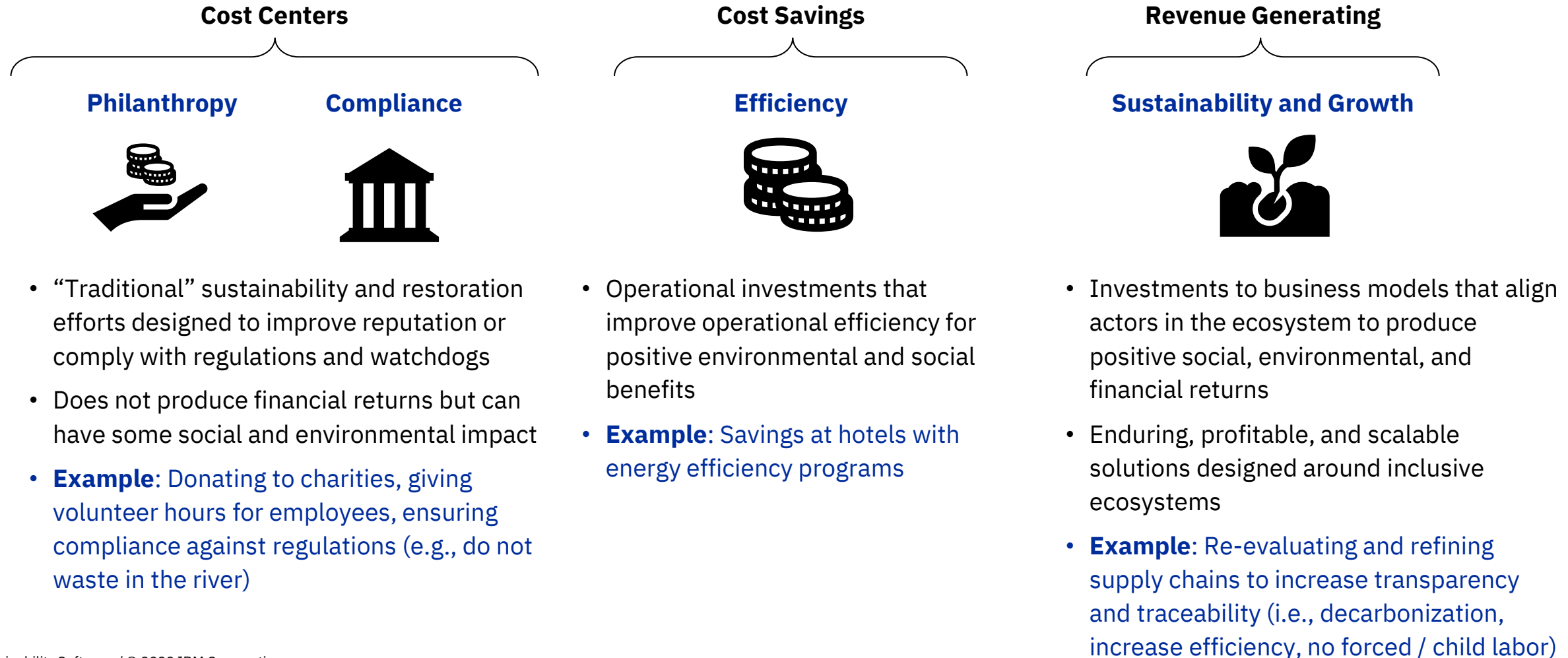
of CEOs are confident they'll achieve sustainability goals

80%

of CEO expect sustainability investments to improve business results in the next five years



# Sustainability and ESG programs need to shift from philanthropy and compliance to growth and innovation



Successfully building a sustainable business is intrinsically tied to data

44%

of CEO's cite a lack of insights from data as a problem

60-73%

of all data is never used for analytical purposes\*

\* Forrester report



42%

of CIOs think Sustainability is the business area digital technologies will have the greatest impact over the next 3 years

Trailblazers are driving growth by aligning sustainability initiatives and digital transformation

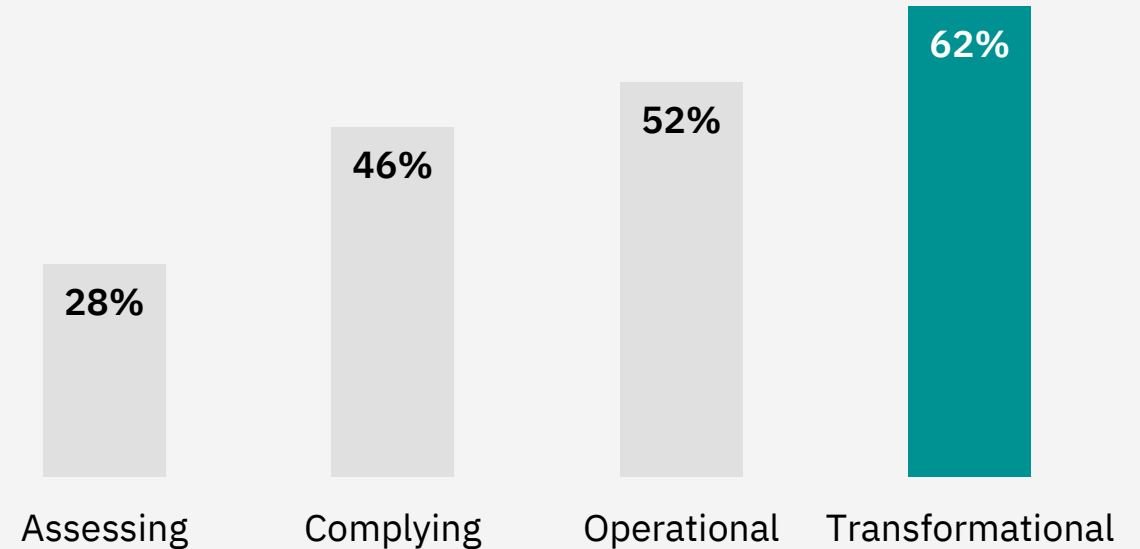
72%

are piloting or implementing only parts of their sustainability strategy

30%

report explicitly aligning their sustainability and digital transformation efforts

% reporting sustainability outperformance



**Transformational CEOs who go “all in” on sustainability are achieving better sustainability outcomes and better business performance**



# To thrive in a sustainable world, leaders must:

- 1 Define their ESG/sustainability **Goals**
- 2 Establish a clear **Baseline**
- 3 **Operationalize** their sustainability goals





Turn sustainability  
ambition into action



# Turn sustainability ambition into action

## **Sustainability Strategy and Roadmap**

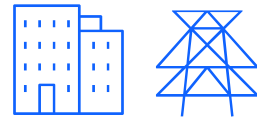
Co-creating a sustainability agenda and pathways towards delivering corporate social impact and business value

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## **ESG Data, Reporting and Risk Management**

System of record for ESG data and insights to measure, report, operationalize and achieve your sustainability roadmap

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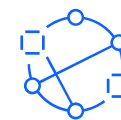
### **Intelligent assets, facilities and infrastructure**

Operational insights to drive clean energy transition, efficient waste management, and decarbonization



### **Responsible computing and green IT**

Responsible computing to enable sustainable IT and drive social impact



### **Sustainable supply chains and circularity**

Intelligent workflows for equitable, transparent, and carbon regenerative supply chains

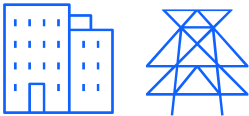


# Define sustainability goals, demonstrate progress to your investors, trading partners, employees and clients

**Sustainability Strategy and Roadmap** Co-creating a sustainability agenda and pathways towards delivering corporate social impact and business value

**ESG Data, Reporting and Risk Management**

System of record for ESG data and insights to measure, report, operationalize and achieve your sustainability roadmap



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**Responsible computing and green IT**

Responsible computing to enable sustainable IT and drive social impact



**Sustainable supply chains and circularity**

Intelligent workflows for equitable, transparent, and carbon regenerative supply chains

# What goals is your organization focused on to drive ESG outcomes?

## e.g. UN Sustainability Development Goals (SDGs)

**#11**  
Sustainable cities and communities

**#7**  
Affordable and clean energy

**#6**  
Clean water and sanitation

- Net Zero by 2030
- Supply Chain Traceability and Transparency
- Reduction of GHG Emissions by 25% in the next 5 years

**#13**  
Climate action

**#15**  
Life on land

**#12**  
Responsible consumption and production

**#14**  
Life below water

- Enhance a diverse, inclusive and hybrid work environment
- Support digital inclusion in our communities



**#1**  
No poverty

**#4**  
Quality education

**#2**  
Zero hunger

**#5**  
Gender quality

**#3**  
Good health and well-being

**#10**  
Reduced inequalities

- Foster a diverse and accountable governance
- Protect and secure data, infrastructure and identity

**#16**  
Peace, justice and strong institutions

**#8**  
Decent work and economic growth

**#17**  
Partnerships for the goals

**#9**  
Industry, innovation and infrastructure

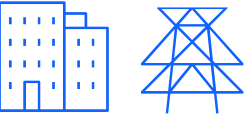
# Create a single system of record for ESG data to establish a clear baseline

## **Sustainability Strategy and Roadmap**

Co-creating a sustainability agenda and pathways towards delivering corporate social impact and business value

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





# How are you capturing, consolidating, and analyzing your sustainability data?

**Data**

<p><b>Utility billing data</b></p>  <p>Electric Gas Water</p>	<p><b>Transport and stationary fuels</b></p>  <p>Diesel, petrol, LPG, propane aircraft fuel, LNG, bio-fuel</p>	<p><b>Refrigerants &amp; fugitive gases</b></p>  <p>100+ gas types</p>	<p><b>Electricity produced</b></p>  <p>Solar, wind, bio-gas, hydro, thermal</p>	<p><b>Building Management, IoT, and Meter data</b></p>  <p>NMI meters, smart meters, sub-meters, control signals, sensors</p>	<p><b>Production metrics</b></p>  <p>Unit, tonnes, \$, litres, hours</p>	<p><b>Building metrics</b></p>  <p>m², FTEs, occupant hours, building ratings, visits</p>	<p><b>Weather data</b></p>  <p>HDD, CDD, rainfall, humidity, irradiation</p>
<p><b>Certificates &amp; offsets</b></p>  <p>RECs, carbon effects</p>	<p><b>Waste &amp; recycling</b></p>  <p>300+ waste &amp; recycling data types</p>	<p><b>Materials</b></p>  <p>100+ material types, construction and building</p>	<p><b>Transportation</b></p>  <p>Air travel, taxi, train, car</p>	<p><b>Fleet and Carrier data</b></p>  <p>Shipping Costs</p>	<p><b>Social Data</b></p>  <p>Community investment, donations, volunteer hours</p>	<p><b>Company metrics</b></p>  <p>Headcount, rooms, beds, meals, sales</p>	<p><b>Governance Data</b></p>  <p>Diversity, inclusion, equity</p>

**Systems**

<p><b>Organizational level</b></p>  <ol style="list-style-type: none"> <li>1. ERP (financial)</li> <li>2. Health &amp; Safety</li> <li>3. HR</li> <li>4. Asset Management</li> <li>5. Supply Chain Management</li> </ol>	<p><b>External frameworks</b></p>  <ol style="list-style-type: none"> <li>1. TCFD</li> <li>2. CDP</li> <li>3. GRESB</li> <li>4. SASB</li> </ol>	<p><b>Building level</b></p>  <ul style="list-style-type: none"> <li>- BMS/BAS</li> <li>- Metering</li> </ul>	<p><b>EDGE/ 5G Devices</b></p>  <ul style="list-style-type: none"> <li>- Mobile</li> <li>- IoT Devices</li> <li>- RFID</li> </ul>	<p><b>Environmental</b></p>  <ul style="list-style-type: none"> <li>- Weather Stations</li> <li>- Radar</li> <li>- Geospatial</li> <li>- Satellite imagery</li> <li>- Geiger-mode LIDAR</li> </ul>
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**Infrastructure**

Employee Computers	Public Cloud	Private Cloud	On-Prem Data Centers
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**Technology**

Hybrid multi-cloud	Artificial intelligence	Advanced analytics	Blockchain	5G & mobile technology
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# Connect your ESG data management with the systems that run operations to drive transformation

**Sustainability Strategy and Roadmap**

Co-creating a sustainability agenda and pathways towards delivering corporate social impact and business value

**ESG Data, Reporting and Risk Management**

System of record for ESG data and insights to measure, report, operationalize and achieve your sustainability roadmap

 <p><b>Intelligent assets, facilities and infrastructure</b></p> <p>Operational insights to drive clean energy transition, efficient waste management, and decarbonization</p>	 <p><b>Responsible computing and green IT</b></p> <p>Responsible computing to enable sustainable IT and drive social impact</p>	 <p><b>Sustainable supply chains and circularity</b></p> <p>Intelligent workflows for equitable, transparent, and carbon regenerative supply chains</p>
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# Where is the opportunity in sustainable operations?



## Companies with a network of Physical Assets

- Reduce emissions
- Energy efficient facilities and assets
- Longer asset life
- Climate risk mitigation
- Regulatory compliance

20%–30%

Increased productivity

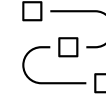


## Companies with a large IT Infrastructure

- Reduce emissions
- Lower cost of IT
- Improved power utilization
- Regulatory compliance

30% in 6mo.

Reduced cloud and data center consumption



## Companies with complex Supply Chains

- Enable track and trace
- Lower product carbon footprints
- Reduce fuel consumption
- Deliver sustainable sourcing
- Scope 3 emissions
- Regulatory compliance

52%

Reduction in expedited freight costs



# IBM Sustainability Software



# IBM's sustainability solutions

Turn sustainability ambition into action  
with IBM and an ecosystem of partners

## IBM Consulting and Ecosystem Partners

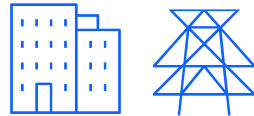
*Strategy, experience,  
technology, managed  
services capabilities*

### **Sustainability Strategy and Roadmap**

Garage for Sustainability (co-creation)  
Sustainability strategic advisory services

### **ESG Data, Reporting and Risk Management**

Envizi, Environmental Intelligence Suite,  
social and climate risk intelligence



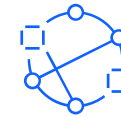
### **Intelligent assets, facilities and infrastructure**

Maximo  
TRIRIGA



### **Responsible computing and green IT**

Turbonomic  
z16 | LinuxONE  
IBM Cloud



### **Sustainable supply chains and circularity**

Sterling Order Management  
Supply Chain Intelligence Suite

## IBM Technology and Ecosystem Partners

*Infused with AI and hybrid cloud technologies*

**IBM**