McKinsey Analytics

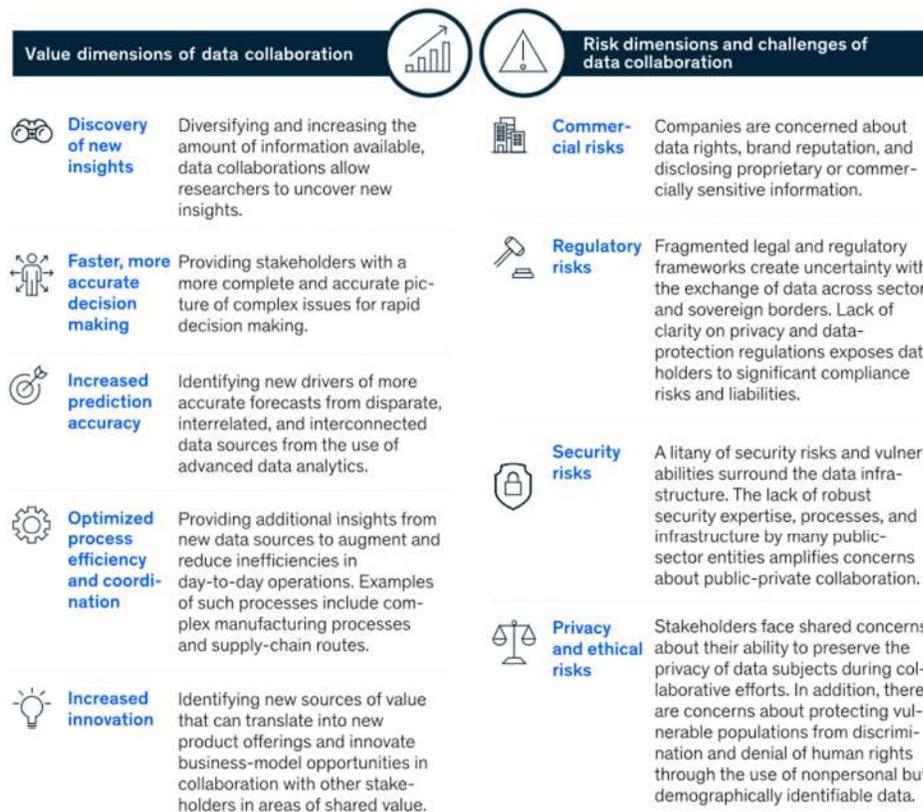# Collaborating for the common good: Navigating public-private data partnerships

Data collaborations can provide value, but they also present risks.

Value dimensions of data collaboration	Risk dimensions and challenges of data collaboration
Discovery of new insights — Diversifying and increasing the amount of information available, data collaborations allow researchers to uncover new insights.	**Commercial risks** — Companies are concerned about data rights, brand reputation, and disclosing proprietary or commercially sensitive information.
Faster, more accurate decision making — Providing stakeholders with a more complete and accurate picture of complex issues for rapid decision making.	**Regulatory risks** — Fragmented legal and regulatory frameworks create uncertainty with the exchange of data across sectors and sovereign borders. Lack of clarity on privacy and data-protection regulations exposes data holders to significant compliance risks and liabilities.
Increased prediction accuracy — Identifying new drivers of more accurate forecasts from disparate, interrelated, and interconnected data sources from the use of advanced data analytics.	**Security risks** — A litany of security risks and vulnerabilities surround the data infrastructure. The lack of robust security expertise, processes, and infrastructure by many public-sector entities amplifies concerns about public-private collaboration.
Optimized process efficiency and coordination — Providing additional insights from new data sources to augment and reduce inefficiencies in day-to-day operations. Examples of such processes include complex manufacturing processes and supply-chain routes.	**Privacy and ethical risks** — Stakeholders face shared concerns about their ability to preserve the privacy of data subjects during collaborative efforts. In addition, there are concerns about protecting vulnerable populations from discrimination and denial of human rights through the use of nonpersonal but demographically identifiable data.
Increased innovation — Identifying new sources of value that can translate into new product offerings and innovate business-model opportunities in collaboration with other stakeholders in areas of shared value.	

There are five critical enablers of public-private data collaboration.

- Achieving stakeholder alignment at the outset of a partnership

- Establishing responsible data governance

- Delivering insights that are accurate, unbiased, and explainable

- Providing decision makers with the tools, processes, and support to act on new insights

- Ensuring long-term economic sustainability

Stakeholder alignment

Economic sustainability and scalability

Responsible data governance

Insight adoption

Insight generation and validation

Analysis of DOE Orange Button Public-Private Data Collaboration against the points and issues raised by McKinnsey and Company and the World Economic Forum
K. Dixon Wright - July 2019

The financing, building and maintaining a modern energy infrastructure, the Smart Grid, is the largest most complicated Public-Private data partnership and collaboration ever undertaken.

The May 2019 The May 2019 article from McKinnsey & Company, and the related April publication by the World Economic Forum outline key observations and issues that need to be addressed when considering Public-Private Partnerships with respect to data collaboration. Many of these identified points highlight the positive contribution the Orange Button and XBRL collaboration bring to Public-Private data partnerships.

McKinsey &Company - May 2019
Collaborating for the common good: Navigating public-private data partnerships
https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/collaborating-for-the-common-good

World Economic Forum – April 2019
Data Collaboration for the Common Good Enabling Trust and Innovation Through Public-Private Partnership
http://www3.weforum.org/docs/WEF_Data_Collaboration_for_the_Common_Good.pdf

Value dimensions of data collaboration

McKinnsey Observations	Orange Button Public-Private Partnership for Data Interoperability
Discovery of new insights Diversifying and increasing the amount of information available, data collaborations allow researchers to uncover new insights.	By enabling data interoperability throughout the ecosystem for financing, building and maintaining infrastructure projects the amount data will be diversified because the various administers of project data along the supply chain will emanate from different sources and uses, which can provide expanded associations of data that otherwise would not have been connected, and generate insights otherwise unobtainable
Faster, more accurate decision making Providing stakeholders with a more complete and accurate picture of complex issues for rapid decision making.	Banking, Insurance and Surety will have large portfolio's of data that with consistent data standards can provide not only useful information, but information that supports more innovative approaches that can drive down costs based on actuarial information that was not available with inconsistent or mission data. That data will ultimately enable rapid decision making capabilities.
Increased prediction accuracy Identifying new drivers of more accurate forecasts from disparate, interrelated, and interconnected data sources from the use of advanced data analytics.	By connecting various data stakeholders across the ecosystem data patterns will emerge that will enable predictive analytics for mitigating risk factors before they escalate, and the improved risk management capabilities will promote innovations that continue to drive down costs.
Optimized process efficiency and coordination Providing additional insights from new data sources to augment and reduce inefficiencies in day-to-day operations. Examples of such processes include complex manufacturing processes and supply-chain routes.	By connecting various data stakeholders across the ecosystem data patterns inefficiencies will be identified and processes will be modified throughout the supply chain for better, faster, cheaper building of infrastructure projects.
Increased innovation Identifying new sources of value that can translate into new product offerings and innovate business-model opportunities in collaboration with other stake-holders in areas of shared value.	The Orange Button collaboration is creating new business models that will make clean energy projects more bankable, insurable and bondable, which is a shared value throughout the ecosystem.

Risk dimensions and challenges of data collaboration

McKinnsey Observations	Orange Button Public-Private Partnership for Data Interoperability
Commercial Risks	
Companies are concerned about data rights, brand reputation, and disclosing proprietary or commercially sensitive information.	The Orange Button collaboration enables secure data exchange strictly between stakeholders, without the need to have data administered, or processed by third parties that could comprise data security. Stakeholders can verify the security protocols of each of its business partners for compliance with security and privacy issues and hold those stakeholders accountable under manageable conditions because the number of stakeholders exchanging data would be limited and contained.
Regulatory risks	
Fragmented legal and regulatory frameworks create uncertainty with the exchange of data across sectors and sovereign borders. Lack of clarity on privacy and data protection regulations exposes data holders to significant compliance risks and liabilities.	The Orange Button utilized XBRL, a recognized data standard by the US Federal Government and Securities and Exchange Commission for financial reporting and being adopted by other federal agencies like the SBA and FERC, along with States like Florida and California. XBRL is used by more than 100 regulators in more than 60 countries, supported by more than 200 software packages and in an increasing number of corporates to facilitate structured data reporting within millions of companies.
Security risks	
A litany of security risks and vulnerabilities surround the data infrastructure. The lack of robust security expertise, processes, and infrastructure by many public sector entities amplifies concerns about public-private collaboration.	The adoption of XBRL by the public sector will enable already established security protocols to be adopted at the same time, without having to create new policies and procedures. The consistent application of already established, or collectively developed security protocols that can be easily implemented by incorporation will enable secure public-private data exchange.
Privacy and ethical risks	
Stakeholders face shared concerns about their ability to preserve the privacy of data subjects during collaborative efforts. In addition, there are concerns about protecting vulnerable populations from discrimination and denial of human rights through the use of nonpersonal but demographically identifiable data.	The Orange Button public-private collaboration on infrastructure projects would not intersect with personal information on individuals, however it would enable more efficient allocation of resources for projects that serve vulnerable populations.

There are five critical enablers of public-private data collaboration.

McKinnsey Observations	Orange Button Public-Private Partnership for Data Interoperability
Achieving stakeholder alignment at the outset of a partnership	By utilizing XBRL and collaboratively expanding the XBRL taxonomy as Orange Button has done to meet stakeholder needs there is a clear alignment at the outset.
Establishing responsible data governance	XBRL, both in the US and internationally, has well establish governance polices and procedures that meet the highest and most stringent demands of the US government, and other countries.
Delivering insights that are accurate, unbiased, and explainable	XBRL is a financial reporting data standard that has no bias, is as accurate as humanly possible and will produce data that is clear and explainable.
Providing decision makers with the tools, processes, and support to act on new insights	XBRL provides all system developers and administrators with reliable, consistent data interoperability across industry segments and silos to promote innovation and competition without constraints imposed by proprietary systems.
Ensuring long-term economic sustainability	Data standards that improve efficiency for financing and building infrastructure projects will provide long term economic sustainability, particularly given its impact on promoting more clean energy projects.