

Data Governance Implementation Survey 2018



Foreword

Compliance will, over the coming decade, drive data governance from a technology issue onto board agendas. One of the drivers for this change will be the EU General Data Protection Regulation (GDPR), which becomes enforceable from 25 May 2018. GDPR doesn't just impact on organizations established in the European Union (EU); it also affects any organization outside the EU that either offers goods or services to, or monitors the behavior of, EU citizens.

GDPR has the impact it does because it requires organizations to apply 'appropriate' organizational and administrative measures to secure personal data, and it defines personal data very broadly: anything (including an IP address) that can be used to identify a living person is personal data, and organizations that collect or process personal data face fines of up to €20 million or 4% of global turnover if they breach the regulation.

Bearing in mind the right of data subjects to seek access to any personal information held, combined with the right to seek financial compensation for non-financial harm they believe arises from unlawful processing of their data, the obligation will be significant on controllers and processors to know where personal data is held, to ensure that it is held securely, and that it is deleted when it is no longer required.

GDPR requires data controllers to embed data protection, by design, in their processes. GDPR mandates accountability for protecting personal data. I believe that, driven by GDPR, a working and effective data governance framework will, together with management standards such as ISO 27001, become a key component of an organization's internal compliance assurance framework; the added benefits are, of course, that effective data governance will also help those organizations compete more effectively in tomorrow's world.

Alan Calder, Founder and Executive Chairman IT Governance Ltd

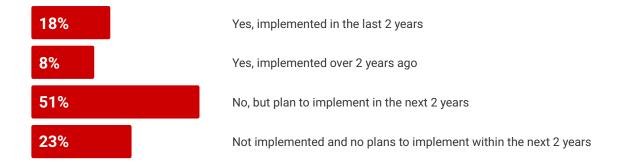
Key Findings

Over 500 SQL Server professionals participated in the survey, with respondents coming from across the globe and representing a wide range of job roles, company sizes, and industries. Among the key findings are:

- 77% of respondents have either already implemented a Data Governance program or plan to within the next two years.
- Regulation was the key driver of Data Governance programs, with 44% of respondents citing this. Improving business intelligence and analytics was also a significant factor, driving 31% of Data Governance programs.
- A lack of understanding of what is required, a lack of alignment across the organization, and a lack of appropriate skills were the most commonly cited challenges in implementing a Data Governance program.
- 72% of respondents worked in organizations that were subject to legislation or regulations such as SOX and HIPAA.
- 27% of respondents recognized they had to comply with the GDPR, even though
 37% process European citizens' data, which would mean they are likely legally required to comply.
- 64% of respondents said adopting a DevOps approach to their software development was beneficial to their Data Governance program. Only 5% said it had a negative impact.
- Successful and very successful programs used 11 tools on average in comparison to unsuccessful and very unsuccessful programs which used just five.



Has your organization already implemented, or do you plan to implement, a Data Governance program?



Just 26% of respondents have already implemented a Data Governance program, but 51% of respondents are planning to implement one in the next two years. 41% of those anticipate it will take one to two years to fully implement and 35% believe it will take more than two years.

Only 23% of organizations had no plans to implement a Data Governance program in the next two years and 70% of those were smaller organizations with 1-50 employees. Among these organizations, the leading reasons for this were no need to have a specific program dedicated to Data Governance (42%), lack of awareness of benefits to the business (13%), lack of understanding of what is required (10%), and lack of support from executive leadership (10%).



What was / is the main driver for implementing a Data Governance program in your organization?



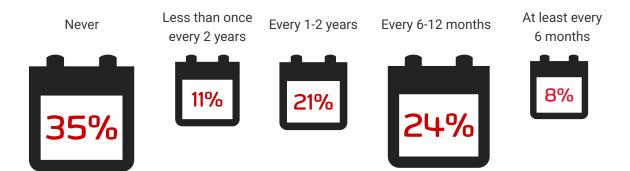
3

The main drivers for implementing a program were regulation and compliance (44%) and to improve business intelligence and analytics (33%).

Of those who have implemented a Data Governance program, 90% found it successful to some degree. For those that were Unsuccessful or Very Unsuccessful, the main drivers were to decrease customer risk and improve business intelligence and analytics. None were driven by regulation and compliance.

Of those that were Successful and Very Successful, 62% implemented some standards or control objectives. 72% had also adopted a DevOps approach across their software projects and felt DevOps had a positive impact on Data Governance.

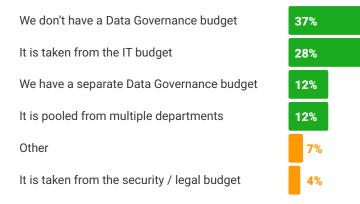
How often is your organization externally audited in relation to its Data Governance program?



5

4

How is the Data Governance program funded?



35% of respondents were never audited in relation to the Data Governance program. Results varied by industry, with IT Services and Consulting being audited the least (45% never) and Financial Services and Insurance audited the most (18% at least every 6 months).

Most organizations that had a budget for a Data Governance program took it from the IT Department budget. When the budget was taken from an existing department budget or pooled, the program was only successful in 60% of cases. Where no specific budget was allocated, the program was only successful in 30% of cases. Where a separate budget was allocated, the program was 85% successful. Again, results varied across industries, with Financial Services and Insurance most commonly allocating a separate budget for the program.

6

Who was / is the primary champion of the Data Governance program in your organization?

IT Director or Manager	23%
DBA	12%
Security Team	12%
Compliance Team	12%
C-level Executive (CIO, CTO, etc)	12%
Other	8%
Architect	8%
Developer	6%
Legal Team	5%
Analyst	3%

When it came to who championed the Data Governance program, unsurprisingly 48% of the time it was someone in the IT Team (DBA, Manager, Developer, Architect), less so C-level Executives (12%).

In organizations with up to 500 employees, the program was most commonly championed by the IT Director or Manager (32%) or DBA (21%). For organizations with 501-5000 employees, the program was most commonly championed by the IT Director or Manager (25%) or the Compliance Team (19%). For organizations with 5001+ employees, the program was more commonly championed by the Security Team (23%) or C-level Executives (15%).



Which of the following roles were involved / assigned as part of the Data Governance program?

Information Security Officer	40%
Project Manager	32%
Data / Information Asset Owner	31%
Data Governance Manager	25%
Data Steward	25%
N/A	19%
Program Manager	18%
Data Protection Officer	17%
Other	8%

The implementation of a Data Governance program involved assigning multiple roles to the program. Usually this was an Information Security Officer (40%) but Project Manager, Data Governance Manager, Data Steward, and Data / Information Asset Owner were the most frequently cited other roles involved.



What do you consider the greatest challenges to be when implementing and maintaining a Data Governance program in your organization?

8

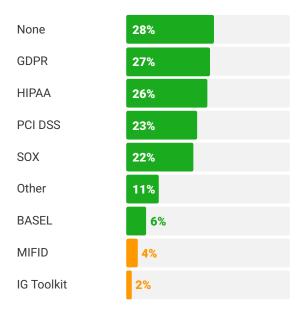
Lack of understanding of what is required	52%
Lack of alignment across the organization	51%
Lack of appropriate skills in the team	47%
Lack of awareness of benefits to the business	41%
Lack of resource	40%
Disruption to existing workflows/business	38%
Poor maintenance of documentation / inventory	38%
Lack of budget to invest in new tooling	29%
Lack of support from executive leadership	26%
Poor change control over time	25%
Other	4%

Surprisingly, lack of support from executive leadership was considered one of the least significant challenges for organizations implementing and maintaining a Data Governance program. The most significant challenges were understanding requirements, ensuring alignment within the organization, and having appropriate skills and resources. Awareness of the business benefits was also highlighted as a challenge and this is where internal communication is needed to embed the program successfully.

9

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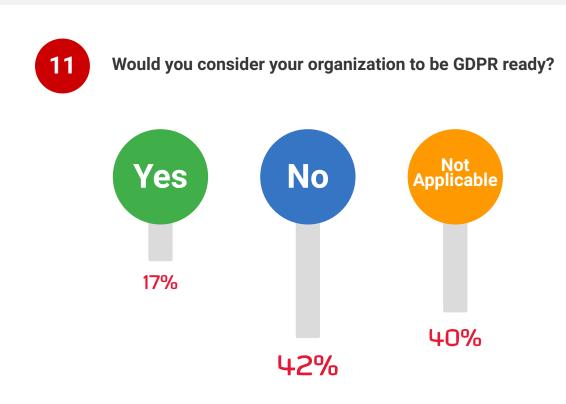
Which of these regulations does your organization need to comply with?



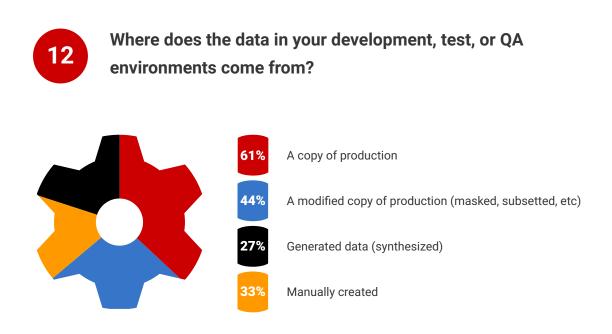
Most respondents (72%) had regulations to comply with, but the percentage was even higher among those who had already implemented a Data Governance program, with 90% of those citing a need to comply with legislation such as the GDPR, HIPAA, SOX, and PCI DSS. This suggests that a stricter regulatory environment is more likely to lead to a Data Governance program being implemented. However, it is interesting to see that only 44% cited regulation as the main driver - improved business intelligence and analytics also scored highly (31%).



Surprisingly, only 27% of respondents said they had to comply with the GDPR, even though 37% process European citizens' data, which suggests it is in fact highly likely that they need to comply. A further 13% responded 'Not sure' to this question, so the percentage required to comply with GDPR may be even higher. Of those that held European citizens' data but stated they didn't need to comply with the GDPR, there was an even split between respondents from Europe and Russia and North America, suggesting a potential lack of awareness even within the EU.



With the GDPR coming into force on 25th May 2018, 42% of organizations still considered themselves to be non-compliant. Of those respondents that had already implemented a Data Governance program, 29% said they were not ready for the GDPR. Of organizations planning to implement a program in the next two years, 53% felt they were not ready for the GDPR, with 45% stating regulation and compliance to be the main driver behind the program.



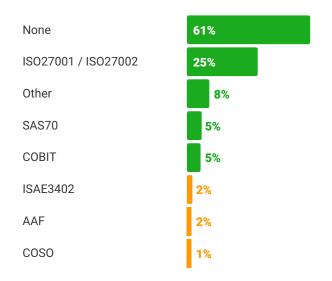
When it comes to using data in non-production environments, 61% of respondents used a copy of production data. With 72% of respondents having to comply with regulations, you may expect to see more organizations masking data or using synthesized data in non-production environments. This was a multiple-choice question, suggesting a copy of production may only be used in certain scenarios ie for some testing or diagnostics. However, 35% of respondents who used data in non-production environments only used a copy of production.

This percentage shifted somewhat when filtering by industry. The lowest percentages only using a copy of production in non-production environments were in IT Services and Consulting (7%), Financial Services and Insurance (8%), and Healthcare, Medical, and Pharma (11%) organizations.

The Energy, Utilities, and Telecommunications industry had the highest number of respondents, with 35% always only using a copy of production for development, testing, or QA. The size of organization had no significant impact on whether a copy of production was used in a non-production environment.



Are you implementing any of the following standards or control objectives?



ISO was the most common framework used by organizations, with over a quarter implementing ISO27001 or ISO27002. In organizations of up to 500 employees, 69% of respondents implemented no standards or control objectives. Of those with 501-5000 employees, 56% implemented no standards or control objectives, and for those with 5000+ employees this dropped to just 50%. These results didn't vary significantly by industry. Of those programs that were Successful and Very Successful, 62% implemented some standards or control objectives.



How important are the following to the success of a Data Governance program in your organization?

Data Discovery	9%	15%	32%		31%	13%
Data Inventory	6%	11%	30%	32	2%	21%
Understanding Data Dependencies	5%	9%	28%	41	%	17%
Data Classification	5%	12%	38%		33%	11%
Data Ownership	6%	10%	33%		34%	17%
Access Control	5%	13%	27%	28%		28%
Documentation	10%	15%	38%		32%	10%
Change Control	8%	13%	31%		38%	13%
Data Anonymization (Masking)	10%	2	3%	37%	17%	14%
Master Data Management	8%	18%	33%	5	30%	11%
Data Quality Control	8%	12%	30%		31%	20%
Monitoring and Alerting	7%	13%	33%		33%	14%
Auditing and Reporting	6%	10%	34%		34%	16%
Backup and Retention	7%	12%	28%	25%		28%

Not important 🛛 Somewhat important

Important

Very important 💮 Critical



How difficult did / do you find the following to carry out in your organization as part of a Data Governance program?

Data Discovery	12%	17%	46%	22%	3%
Data Inventory	10%	19%	43%	24%	4%
Understanding Data Dependencies	9%	15%	37%	32%	7%
Data Classification	10%	20%	49%	19%	3%
Data Ownership	10%	24%	40%	21%	5%
Access Control	10%	27%	43%	14%	5%
Documentation	10%	19%	43%	22%	6%
Change Control	11%	23%	40%	22%	5%
Data Anonymization (Masking)	17%	19%	43%	18%	3%
Master Data Management	18%	5 13%	41%	24%	3%
Data Quality Control	11%	13%	43%	25%	7%
Monitoring and Alerting	11%	25%	48%	13%	3%
Auditing and Reporting	11%	23%	49%	14%	3%
Backup and Retention	13%		45%	33% <mark>7%</mark>	2%
N/A Not Difficult	Somew	/hat Difficult	Extremely Dir	fficult 🛑 Impos	sible

When asked how important certain factors were to the success of a Data Governance program, 28% of respondents felt Access Control and Backup and Retention were Critical. However, these were also easiest to carry out, with only 19% finding Access Control Extremely Difficult or Impossible and 9% for Backup and Retention. Understanding Data Dependencies was both Very Important or Critical (58%) and Extremely Difficult or Impossible to carry out (39%).

Results didn't vary hugely by industry. However, when looking by job role, those specifically focusing on compliance, such as Data Protection Officers and Data Governance Managers, said Data Anonymization was most important (30% Critical) and most difficult to carry out (40% Extremely Difficult or Impossible).

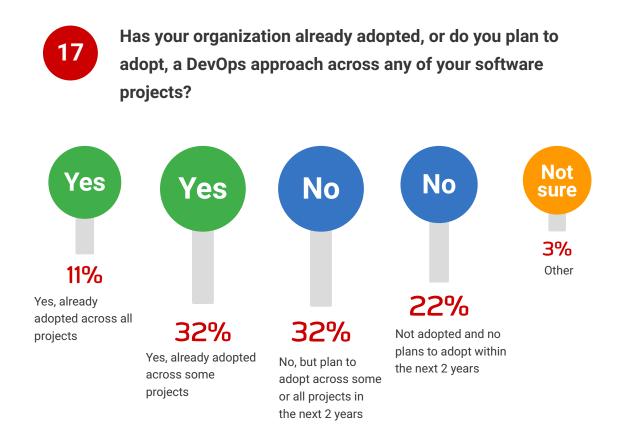


for a third party tool

Did you use / require any tooling to help with the following as part of the Data Governance program in your organization?

Data Discovery	17%	12%	5 20	<mark>% 9%</mark>		47%	
Data Inventory	15%	13%	19%	11%		46%	
Understanding Data Dependencies	13%	12%	21%	13%		42%	
Data Classification	14%	13%	15%	17%		43%	
Data Ownership	13%	10%	13%	24%		41%	
Access Control	18%	10%	2	5% 14	%	37%	J
Documentation	15%	13%	26	% 14	%	37%	
Change Control	16%	10%	31	1 1	%	35%	
Data Anonymization (Masking)	18%	13%	6 20)% 13 %		40%	
Master Data Management	13%	12%	23%	10%		47%	
Data Quality Control	17%	13%	6 179	6 11%		44%	
Monitoring and Alerting	20%	6 13	8%	32%	9%	30%	
Auditing and Reporting	24	%	12%	28%	9 %	33%	
Backup and Retention	219	% <mark>8</mark> %	6	40%	9 %	27%	
Use an internally developed tool and hap	ру		Use a	third party	tool	No tool	required
Use an internally developed tool but are l	ooking		Not y	et decided			

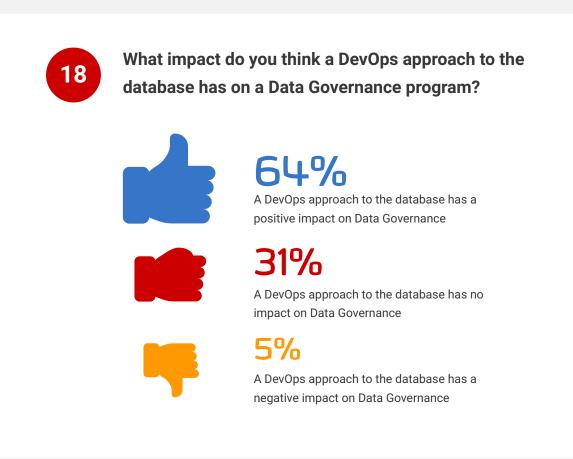
On average respondents that have implemented a Data Governance program used six tools. There is a strong correlation between the success of a program and the use of tooling. Among those respondents whose programs were Successful or Very Successful, 11 tools were used on average, in comparison to Unsuccessful or Very Unsuccessful programs where only five tools were used on average.



43% of respondents have already adopted a DevOps approach to some or all of their software projects, and a further 32% have adoption plans for the next two years. Only 22% have no plans to adopt a DevOps approach within the next two years. Adoption rates don't appear to increase with the size of organization.

However, there was a noticeable increase in adoption rates with the number of employees responsible for IT development, engineering, or operations. 49% of organizations with 501+ employees in IT had already adopted a DevOps approach to software projects. Just 14% had no plans to adopt. In contrast, organizations with 500 employees or less responsible for development, engineering, or operations had 41% adoption and 28% had no plans to adopt a DevOps approach to software projects.

88% of those with no plans also hadn't implemented a Data Governance program and 49% had no plans to implement one. There is a strong correlation between DevOps adoption and the implementation of a Data Governance program.



Data Governance is sometimes seen to conflict with DevOps, as the speed of change associated with DevOps can be seen as a risk. However, 64% of respondents said a DevOps approach to the database had a positive impact on Data Governance and only 5% said it had a negative impact. This is likely because DevOps introduces managed processes that actually simplify compliance by enabling software to be delivered in a consistent, reliable, and repeatable way, and by providing an audit trail of changes made. Of those respondents that have a Successful or Very Successful Data Governance program, 72% felt a DevOps approach to the database had a positive impact on Data Governance.

19

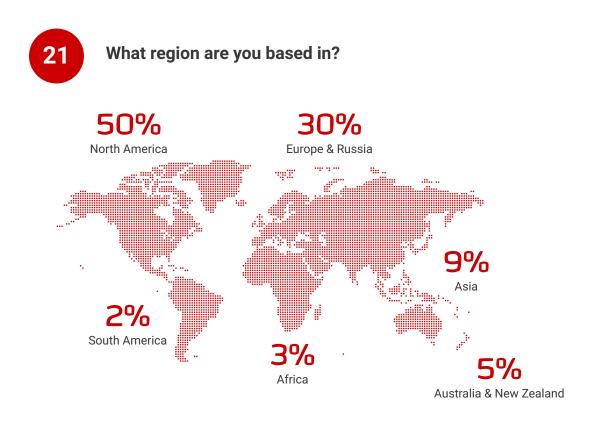
What is your job title

Database Administrator	25%
Architect	13%
IT Director or Manager	12%
Database Developer	12%
Developer	10%
Other	8%
Application Developer	7%
Analyst	5%
C-level Executive (CIO, CTO etc)	3%
Data Governance Manager	2%
DevOps Engineer	1%
Data Protection Officer	1%



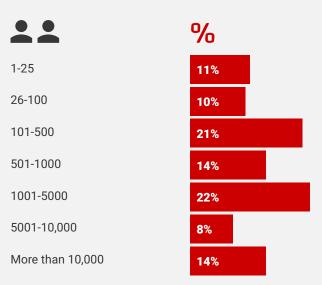
Which industry sector do you work in?

IT Services/Consulting	24%
Financial Services/Insurance	22%
Healthcare/Medical/Pharma	16%
Government/Education/Non-Profit	11%
Other	10%
Retail/Consumer Services	7%
Industrial/Manufacturing	7%
Energy/Utilities/Telecommunications	5%



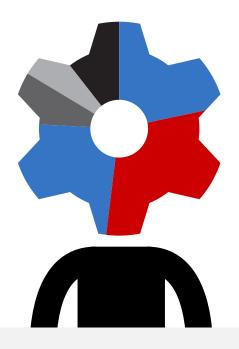


Approximately how many employees are in your organization?





Approximately how many of those employees are responsible for IT development, engineering or operations?



30% 11-50 employees **22%** 1-10 employees **24%** 51-250 employees

10% More than 1000 employees
8% 251-500 employees
6% 501-1000 employees

24

Which of these database platforms are you using?

SQL Server	98%
Oracle	32%
MySQL	26%
PostgreSQL	13%
MongoDB	13%
Other NoSQL database	13%
DB2	12%
Other database platform	11%