

COURSEWARE

# DATA MANAGEMENT COURSEWARE BASED ON CDMP FUNDAMENTAL



Data Management courseware based on  
CDMP Fundamentals

## **Publisher about the Courseware**

The Courseware was created by experts from the industry who served as the author(s) for this publication. The input for the material is based on existing publications and the experience and expertise of the author(s). The material has been revised by trainers who also have experience working with the material. Close attention was also paid to the key learning points to ensure what needs to be mastered.

The objective of the courseware is to provide maximum support to the trainer and to the student, during his or her training. The material has a modular structure and according to the author(s) has the highest success rate should the student opt for examination. The Courseware is also accredited for this reason, wherever applicable.

In order to satisfy the requirements for accreditation the material must meet certain quality standards. The structure, the use of certain terms, diagrams and references are all part of this accreditation. Additionally, the material must be made available to each student in order to obtain full accreditation. To optimally support the trainer and the participant of the training assignments, practice exams and results are provided with the material.

Direct reference to advised literature is also regularly covered in the sheets so that students can find additional information concerning a particular topic. The decision to leave out notes pages from the Courseware was to encourage students to take notes throughout the material.

Although the courseware is complete, the possibility that the trainer deviates from the structure of the sheets or chooses to not refer to all the sheets or commands does exist. The student always has the possibility to cover these topics and go through them on their own time. It is recommended to follow the structure of the courseware and publications for maximum exam preparation.

The courseware and the recommended literature are the perfect combination to learn and understand the theory.

-- Van Haren Publishing

## **Intro to Data Management courseware based on CDMP Fundamentals**

More and more organisations see 'data' as the fuel on which the business engine runs. Themes such as data-driven work and smart solutions with big data and artificial intelligence are relevant in all sorts of sectors. This development means that more attention is being paid to data management: what does it mean to manage data as an 'asset'? And how do we guard the balance between 'grip on data' on the one hand, and 'value creation with data' on the other?

DAMA is the international professional organisation in the field of data management. The Data Management Body of Knowledge (DMBOK) is the best known publication, and Certified Data Management Professional (CDMP) the best known certification. The purpose of this training course is to prepare for the CDMP exam. The training covers all relevant parts of the DMBOK and contains besides theory also a number of practical exercises and practice questions which prepare for the exam.

### **Literature reference**

The chapter structure of this courseware and the recommended Data Management Body of Knowledge (DMBOK) has been made alike. Therefore if you are looking for additional references you can do so in the DMBOK.

## Colophon

Title: Data Management courseware based on CDMP Fundamentals

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- IT and IT Management
- Architecture (Enterprise and IT)
- Business Management and
- Project Management

Van Haren Publishing is also publishing on behalf of leading organizations and companies: ASLBiSL Foundation, BRMI, CA, Centre Henri Tudor, Gaming Works, IACCM, IAOP, IFDC, Innovation Value Institute, IPMA-NL, ITSqc, NAF, KNVI, PMI-NL, PON, The Open Group, The SOX Institute.

Topics are (per domain):

### IT and IT Management

ABC of ICT  
ASL®  
CATS CM®  
CMMI®  
COBIT®  
e-CF  
ISO/IEC 20000  
ISO/IEC 27001/27002  
ISPL  
IT4IT®  
IT-CMF™  
IT Service CMM  
ITIL®  
MOF  
MSF  
SABSA  
SAF  
SIAM™  
TRIM  
VeriSM™

### Enterprise Architecture

ArchiMate®  
GEA®  
Novius Architectuur  
Methode  
TOGAF®

### Business Management

*BABOK® Guide*  
BiSL® and BiSL® Next  
BRMBOK™  
BTF  
EFQM  
eSCM  
IACCM  
ISA-95  
ISO 9000/9001  
OPBOK  
SixSigma  
SOX  
SqEME®

### Project Management

A4-Projectmanagement  
DSDM/Atern  
ICB / NCB  
ISO 21500  
MINCE®  
M\_o\_R®  
MSP®  
P3O®  
*PMBOK® Guide*  
Praxis®  
PRINCE2®

For the latest information on VHP publications, visit our website: [www.vanharen.net](http://www.vanharen.net).

## Author about this Courseware

Denise Harders is a passionate and experienced consultant, trainer, and enjoys simplifying complex subject matter into visualizations. In recent years, she has helped professionals and organisations to make data management more accessible, from a strategic to an operational level. Her motto is: making success accessible by visual clarification and simplification in a world of data overload. She applies this motto not only for her current employer "&More" and all clients where she fulfils data management assignments, but also in her own visualisation company "Simplefeye".

Denise has experienced on the one hand that organisations increasingly see the importance of good data management, while on the other hand the translation to practice is often lacking. In her experience, this is often due to a lack of knowledge, other interests or the inability to see things from a common or different perspective.

Theory is often more difficult than practice. Denise has experienced that visualising helps in translating theory into practice. Recently Denise has translated her experience in the field of data management into an infographic video "What is data management". At the moment, she is writing and visualising a book in which her way of making a subject, in this case data management, accessible is brought to life. This book combines theory and practice and gives organisations and professionals a good overview of the field, including templates to get started.

Bas van Gils is a driven and experienced consultant, trainer, and researcher. In recent years, he has helped professionals and organizations in achieving their digital aspirations: from strategy to realization. His motto is: in an increasingly digital world, you have to put the people first. He has applied this motto in different industries in Europe and the United States. Bas has published various books and articles in this realm, mostly from an architecture perspective. Bas has delivered many training and education programs at universities and in organizations.

It is increasingly apparent that data is one of the key assets for many organizations. As a consequence, data management is seen as a strategic capability. Bas has helped many organizations to become more data driven, impacting data management processes, organization structures (CDO-office), and training professionals. Balancing grip on data (data access, interoperability, quality) and value creation with data (analytics, reporting, big data) is a key driver for these initiatives. Recently, Bas has published his experiences in this field in the book Data Management – A Gentle Introduction. This book combines theory and practice, and provides organizations and professionals with a broad overview of the field as well as tools to get started.

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## Self-Reflection of understanding Diagram

*‘What you do not measure, you cannot control.’ – Tom Peters*

Fill in this diagram to self-evaluate your understanding of the material. This is an evaluation of how well you know the material and how well you understand it. In order to pass the exam successfully you should be aiming to reach the higher end of Level 3. If you really want to become a pro, then you should be aiming for Level 4. Your overall level of understanding will naturally follow the learning curve. So, it’s important to keep track of where you are at each point of the training and address any areas of difficulty.

Based on where you are within the Self-Reflection of Understanding diagram you can evaluate the progress of your own training.

<i>Level of Understanding</i>	<i>Before Training (Pre-knowledge)</i>	<i>Training Part 1 (1st Half)</i>	<i>Training Part 2 (2nd Half)</i>	<i>After studying / reading the book</i>	<i>After exercises and the Practice exam</i>
<i>Level 4 I can explain the content and apply it .</i>					
<i>Level 3 I get it! I am right where I am supposed to be.</i>					<i>Ready for the exam!</i>
<i>Level 2 I almost have it but could use more practice.</i>					
<i>Level 1 I am learning but don't quite get it yet.</i>					

(Self-Reflection of Understanding Diagram)

Write down the problem areas that you are still having difficulty with so that you can consolidate them yourself, or with your trainer. After you have had a look at these, then you should evaluate to see if you now have a better understanding of where you actually are on the learning curve.

**Troubleshooting**

*Problem areas:*

*Topic:*

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Part 1

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Part 2

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You have gone through the book and studied.

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You have answered the questions and done the practice exam.

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## Timetable

### Day 1

Time:	Subject:
+/- 15 min.:	Walk-in
+/- 60 min.:	Intro Data Management + exercise Maturity
+/- 20 min.:	Data Governance.
+/- 15 min.:	break of 10 minutes (in reality 15)
+/- 30 min.:	Data Architecture
+/- 30 min.:	Exercise DG+DA
+/- 60 min.:	Lunch
+/- 60 min.:	Data modeling & Design
+/- 20 min.:	Data Storage & Operations
+/- 15 min.:	break of 10 minutes (in reality 15)
+/- 20 min.:	Data Security
+/- 20 min.:	Data Integration & Interoperability

### Day 2

Time:	Subject:
+/- 15 min.:	Walk-in
+/- 20 min.:	Document & Content
+/- 20 min.:	Reference & Master data
+/- 60 min.:	Data Warehouse & BI
+/- 15 min.:	break of 10 minutes (in reality 15)
+/- 15 min.:	Exercise Data warehouse & BI
+/- 20 min.:	Metadata
+/- 60 min.:	Lunch
+/- 60 min.:	Data Quality
+/- 15 min.:	Exercise data quality
+/- 15	break of 10 minutes (in reality 15)
+/- 60 min.:	Exam training



## Program:

- Data Management
- Data Governance
- Data Architecture
- Data Modeling & Design
- Data Storage & Operations
- Data Security
- Data Integration & Interoperability
- Document & Content Management
- Reference & Master Data Management
- Data Warehousing & BI
- Metadata Management
- Data Quality Management
- Exam, how to enroll

**DATA MANAGEMENT**

DATA MANAGEMENT IS THE DEVELOPMENT, IMPLEMENTATION AND OVERSIGHT OF PLANS, POLICIES, PROGRAMS AND PRACTICES THAT DELIVER, CONTROL, PROTECT AND ENHANCE THE VALUE OF DATA AND INFORMATION ASSETS THROUGHOUT THEIR LIFE CYCLE.

**Data Governance**

- Data Architecture
- Data Modeling & Design
- Data Storage & Operations
- Data Security
- Data Integration & Interoperability
- Document & Content Management
- Reference & Master Data
- Data Warehousing & Business Intelligence
- Metadata
- Data Quality

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## Notes:

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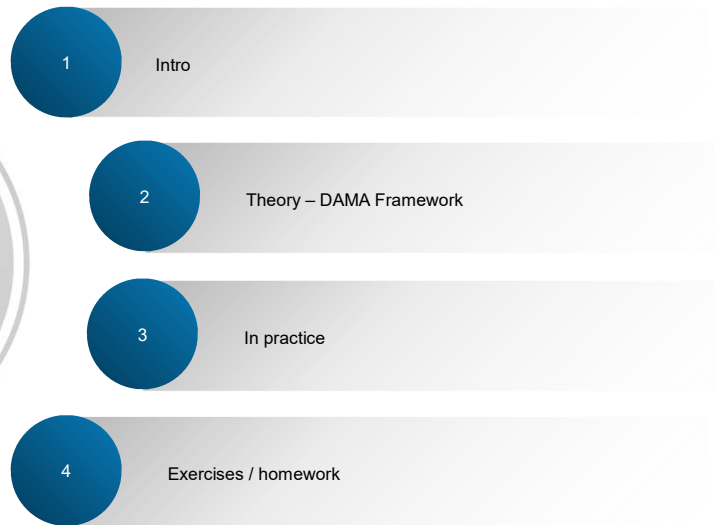
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## Program:

Data Management  
Data Governance  
Data Architecture  
Data Modeling & Design  
Data Storage & Operations  
Data Security  
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## What are we going to do?



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## Notes:

For each section, we will cover a brief introduction to what the relevant knowledge area entails, some of the theory and what we see in practice. Then for certain chapters we will go through an exercise together.

The agenda will be as follows:

Day 1:

+/- 15 min: Walk-in

+/- 60 min: Intro Data Management + exercise Maturity

+/- 20 min: Data Governance.

+/- 15 min: Break of 10 minutes (in reality 15 minutes)

+/- 30 min: Data Architecture

+/- 30 min: Exercise DG+DA

+/- 60 min: Lunch

+/- 60 min: Data Modeling & Design

+/- 20 min: Data Storage & Operations

+/- 15 min: Break of 10 minutes (in reality 15 minutes)

+/- 20 min: Data Security

+/- 20 min: Data Integration & Interoperability

Day 2:

+/- 15 min: Walk-in

+/- 20 min: Document & Content

+/- 20 min: Reference & Master Data

+/- 60 min: Data Warehouse & BI

+/- 15 min: Break of 10 minutes (in reality 15 minutes)

+/- 15 min: Exercise Data Warehouse & BI

+/- 20 min: Metadata

+/- 60 min: Lunch

+/- 60 min: Data Quality

# Data Management Courseware

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- +/- 15 min: Exercise Data Quality
- +/- 15 min: Break of 10 minutes (in reality 15 minutes)
- +/- 60 min: Exam training

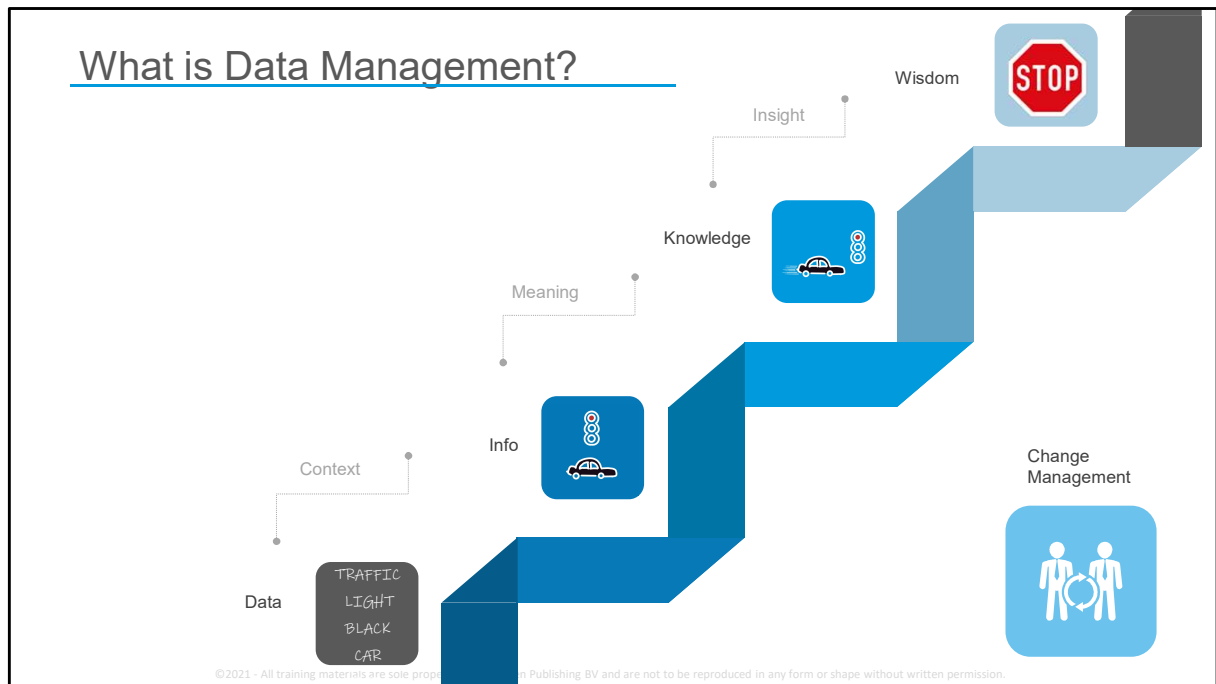




# Data Management Courseware

## Program:

- Data Management
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## Notes:

First, what do we see here? Stoplight, Black, Car, Red.... But what exactly is this? <click "data">

We are looking at data here, data by itself says nothing. <click "context">

What if we add context, what do we get? <let the students come up with ideas, discuss them> <click "info">

Indeed you get Info, for example the traffic light is red and the car is black. If we take another step on top of this, where do we end up? <click "knowledge">

Indeed we then have the knowledge and if we use that knowledge what then? <click "wisdom">

We have actually used the data to our advantage and that is possible if we have applied data management properly. Data management is actually change management, it is a process not a one-time activity. Everyone in the organization is responsible for it.

### Change management

People Change > then the Organization

Let the employees be part of the change

Use old knowledge to prevent (it is like this now because it went the way it did)

Necessity is necessary

### Managing transition

Ending – Neutral – New Beginning

Change manager must understand the end station/vision

## ***Why changes go wrong***

Complacency within the organization "it is working well anyway"

Lack of support at the top of the organization

No clear (communicated vision) [vision= clear & compelling statement of where the change is leading].

No communication or not enough actions and results

Letting obstacles get in the way of achieving the vision:

- psychological (e.g. fear)
- ▽ structural (e.g. narrow job category)
- active resistance

No short-term wins

Speaking too soon of victory

No safeguarding of the change in the culture/employees

## ***What obstacles do you face in change?***

Internally focused culture

Bureaucracy

Politics of self-interest

Little trust

Little teamwork

Arrogance

Little or failing leadership

Fear of the unknown

## ***8 steps of Kotter***

Establishing a sense of urgency.

Creating the guiding coalition.

Developing a vision & strategy.

Communicating the change vision → Everyone within the data management

"community" is responsible for communicating and promoting data management.

Empowering broad-based action.

Creating short-term wins.

Consolidating gains and producing more change.

Anchoring new approaches in culture.

## ***ADKAR***

Awareness, data literacy, awareness that data is important

Desire, management indicates that it is important

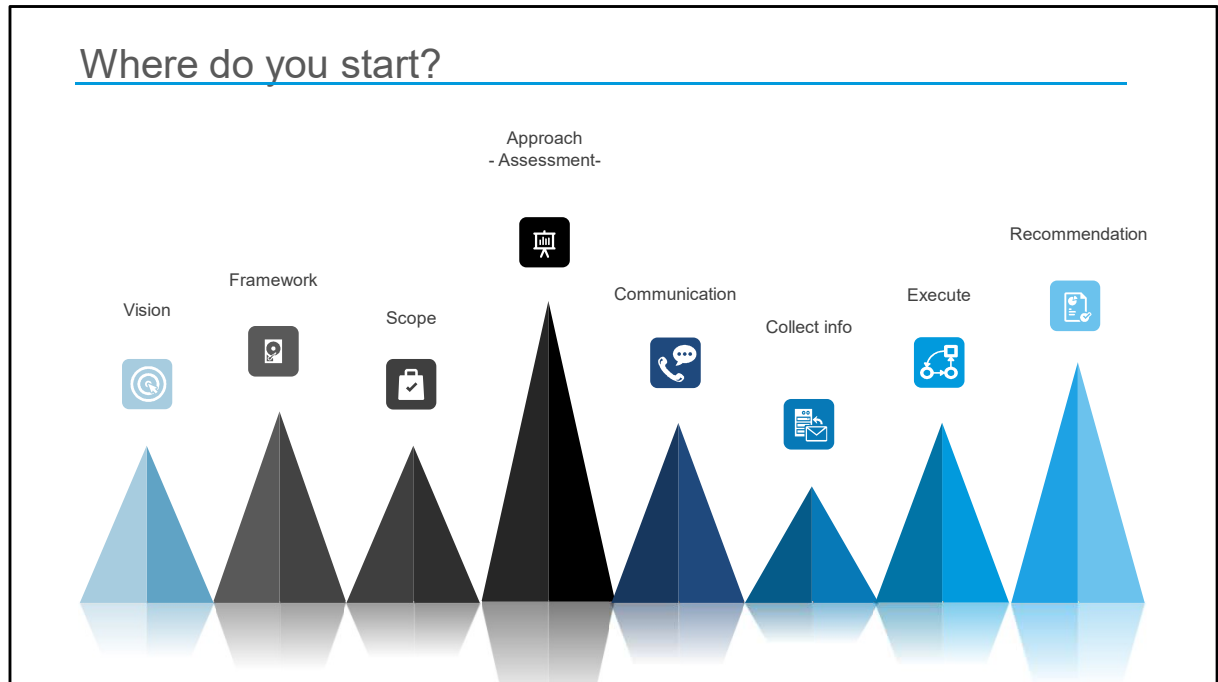
Knowledge, you know what it means

Ability, can you do it, training

Reinforcement, how can you ensure that employees will actually do it.

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## Notes:

### How to start with data management

<< potential exam question: The business is the leader, IT is supportive >>  
[ vision - framework - scope - approach- communication- collect info - execute- report/ recommendations]

! Framework: we use DAMA DM-BoK

! Scope: don't be tempted to do everything at once

! Gathering information: workshops, interviews, surveys

! Reporting: executive briefings (summary of findings, strengths, weaknesses and recommendations, clarification of likely impacts and benefits.

Recommendations must be able to be implemented)

Describe the capabilities the organization needs - identify actions & roadmap  
- re-assess periodically.

In addition to the assessment, which provides guidance on where you want to go and where you are now, it is important to consider the following points:

### ***Making data value measurable in costs:***

Cost of replacing data if it **were** lost.

Cost of obtaining and storing data.

Impact on the organization if data cannot be found.

Cost of risk reduction and potential cost of risks associated with data.

Cost of improving data.

Benefits of better quality data.

What competitors would pay for data.

What the data could be sold for.

Expected revenues from data by innovative users.

## ***Costs are caused by:***

Scrap & rework.  
Work-arounds and hidden correction processes.  
Organizational inefficiencies or low productivity.  
Organizational conflicts.  
Low job satisfaction.  
Customer dissatisfaction.  
Opportunity costs, including inability to innovate.  
Compliance costs or fines.  
Reputational costs.

## ***Benefits***

Improved customer experience.  
Increased productivity.  
Less risk.  
Ability to act on opportunities.  
Increased revenues.  
Competitive advantage achieved with insights on customers, products, processes and opportunities.

## ***Exercise: Assessment maturity***

Write down on a flipchart or whiteboard what different maturity levels there are, explain them and give the group five different statements to classify to the appropriate maturity level.

Levels:

Niv 1: Ad-hoc  
Niv 2: Pioneer  
Niv 3: Systematic  
Niv 4: Proactive  
Niv 5: Optimized / data-driven

Statements:

N1: There is an immediate response to solve a problem.  
N2: Standard formats are available and role descriptions are in place.  
N3: Processes are scalable, policies are in place.  
N4: There are operational metrics to measure quality.  
N5: Processes are improved.

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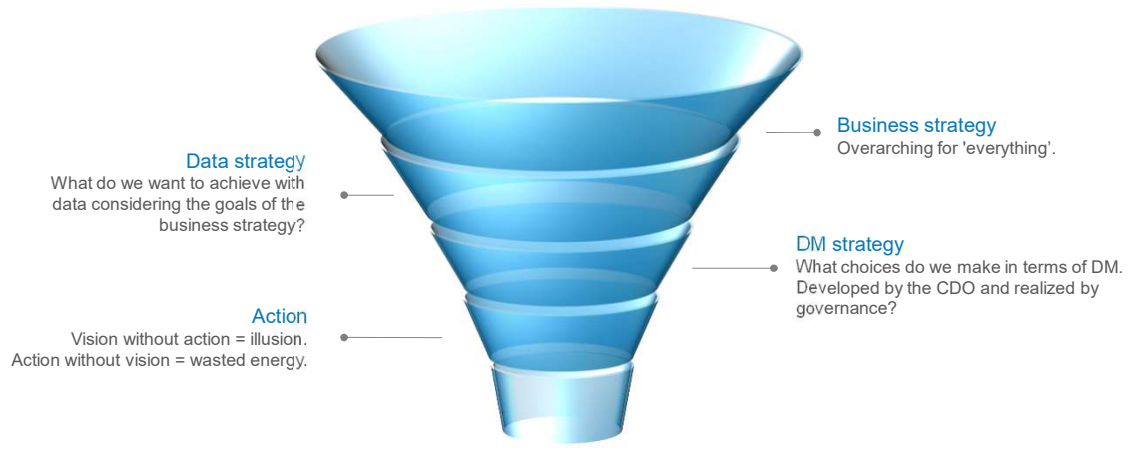
## Data(Management) strategy

### Strategy

Set of choices as input for (developing) a strategic plan.

### Strategic plan

High-level planning for achieving strategic objectives.



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## Notes:

Optional help-slide for trainers.

Part 2.6 is about data management strategy and, when implicated, also about data strategy.

There are often discussions about this.

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Interoperability  
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## Practice question

Which one of the following is not true when describing Capability Maturity Model Integration (CMMI)?

- A. Model framework to assess data and process maturity.
- B. Model framework to determine priorities.
- C. Model framework to institute process and data improvement.
- D. Defines six levels of process maturity.



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## Notes:

Answer: D. Defines six levels of process maturity. The Capability Maturity Model defines five levels of process maturity; Model framework to assess data and process maturity; Model framework to determine priorities; and Model framework to institute process and data improvement.

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# DATA GOVERNANCE

**DATA GOVERNANCE IS EXERCISE OF AUTHORITY AND CONTROL OVER THE MANAGEMENT OF DATA ASSETS.**

**DATA GOVERNANCE IS A DISCIPLINE OF CATALOGING AND DEFINING IMPORTANT DATA, ASSIGNING OWNERSHIP OF DATA AND INCORPORATING THE MANAGEMENT OF DATA INTO THE DAILY BUSINESS PROCESS.**

DAMA domain and definition

Which part of the DAMA circle ?

The % it counts in the examination

Context diagram

### Data Governance and Stewardship

Definition: The exercise of authority, control and shared decision-making, planning, monitoring and enforcement over the management of data assets.

**Goals:**

1. Enable an organization to manage its data as an asset.
2. Define, approve, communicate, and implement principles, policies, procedures, metrics, tools and responsibilities for data management.
3. Monitor and guide policy compliance, data usage and management activities.

**Business Drivers**

Inputs:	Activities:	Deliverables:
<ul style="list-style-type: none"> <li>• Business Strategies &amp; Goals</li> <li>• IT Strategies &amp; Goals</li> <li>• Data Management and Data Strategies</li> <li>• Organization Policies &amp; Standards</li> <li>• Business Culture Assessment</li> <li>• Data Maturity Assessment</li> <li>• IT Practices</li> <li>• Regulatory Requirements</li> </ul>	<ol style="list-style-type: none"> <li>1. Define Data Governance for the Organization (P)</li> <li>1.1 Develop Data Governance Strategy</li> <li>2. Perform Business Assessment</li> <li>3. Perform Discovery and Business Alignment</li> <li>4. Develop Organizational Touchpoints</li> <li>2. Define the Data Governance Strategy (P)</li> <li>1. Define the Data Governance Operating Framework</li> <li>2. Develop Goals, Principles, and Policies</li> <li>3. Undertake Data Management Projects</li> <li>4. Engage Change Management</li> <li>5. Engage in Issue Management</li> <li>6. Assess Regulatory Compliance Requirements</li> <li>3. Implement Data Governance (O)</li> <li>1. Sponsor Data Standards and Procedures</li> <li>2. Develop a Business Glossary</li> <li>3. Coordinate with Architecture Groups</li> <li>4. Sponsor Data Asset Validator</li> <li>4. Embed Data Governance (C/O)</li> </ol>	<ul style="list-style-type: none"> <li>• Data Governance Strategy</li> <li>• Data Strategy</li> <li>• Business / Data Governance Strategy Roadmap</li> <li>• Data Governance Operating Framework</li> <li>• Data Governance Principles and Policies</li> <li>• Data Governance Goals</li> <li>• Data Governance Standards</li> <li>• Data Governance Metrics</li> <li>• Data Governance Scorecards</li> </ul>

**Suppliers:**

- Business Executives
- Data Stewards
- Data Owners
- Subject Matter Experts
- Maturity Assessors
- Regulators
- Enterprise Architects

**Participants:**

- Steering Committees
- CDO / Chief Data Officers
- CDO / Chief Data Stewards
- Executive Data Stewards
- Coordinating Data Stewards
- Business Data Stewards
- Data Governance Bodies
- Compliance Teams
- DM Initiatives
- Change Managers
- Enterprise Data Architects
- Project Management Office
- Governance Bodies
- Audit
- Data Professionals

**Consumers:**

- Data Governance Bodies
- Project Managers
- Compliance Team
- DM Committees of Interest
- DM Teams
- Business Management
- Architecture Groups
- Partner Organizations

**Technical Drivers**

Techniques:	Tools:	Metrics:
<ul style="list-style-type: none"> <li>• Condo Messaging</li> <li>• Contact List</li> <li>• Logo</li> </ul>	<ul style="list-style-type: none"> <li>• Websites</li> <li>• Business Glossary Tools</li> <li>• Workflow Tools</li> <li>• Document Management Tools</li> <li>• Data Governance Scorecards</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance to regulatory and internal data policies.</li> <li>• Value</li> <li>• Effectiveness</li> <li>• Sustainability</li> </ul>

(P) Planning, (C) Control, (I) Development, (O) Operations

Source: DAMA DMBOK v2

## Notes:

Speaker backup slide - how to read the slides.

Like this hidden slide, there are several slides in this deck that are "hidden". This is done for speakers who may have a tad less experience in an area or may prefer to use a clarification on a slide. It is the speaker's choice to keep these slides hidden or make them visible.





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# DATA GOVERNANCE

**DATA GOVERNANCE IS EXERCISE OF AUTHORITY AND CONTROL OVER THE MANAGEMENT OF DATA ASSETS.**

**DATA GOVERNANCE IS A DISCIPLINE OF CATALOGING AND DEFINING IMPORTANT DATA, ASSIGNING OWNERSHIP OF DATA AND INCORPORATING THE MANAGEMENT OF DATA INTO THE DAILY BUSINESS PROCESSES.**

Data Governance and Stewardship

Definition: The exercise of authority, control, and shared decision-making, planning, monitoring, and enforcement over the management of data assets.

**Goals:**

1. Enable an organization to manage its data as an asset.
2. Define, approve, communicate, and implement principles, policies, procedures, metrics, tools and responsibilities for data management.
3. Monitor and guide policy compliance, data usage, and management activities.

Business Drivers

Inputs:	Activities:	Deliverables:
<ul style="list-style-type: none"> <li>• Business Strategies &amp; Goals</li> <li>• IT Strategies &amp; Goals</li> <li>• Data Management and Data Strategies</li> <li>• Organization Policies &amp; Standards</li> <li>• Business Culture Assessment</li> <li>• Data Maturity Assessment</li> <li>• IT Practices</li> <li>• Regulatory Requirements</li> </ul>	<ol style="list-style-type: none"> <li>1. Define Data Governance for the Organization (P)</li> <li>2. Develop Data Governance Strategy</li> <li>3. Perform Discovery and Business Alignment</li> <li>4. Develop Organizational Touchpoints</li> <li>5. Define the Data Governance Strategy (P)</li> <li>6. Develop Data Governance Operating Framework</li> <li>7. Develop Goals, Principles, and Policies</li> <li>8. Undertake Data Management Projects</li> <li>9. Engage Change Management</li> <li>10. Assess Regulatory Compliance Requirements</li> <li>11. Implement Data Governance (O)</li> <li>12. Sponsor Data Standards and Procedures</li> <li>13. Develop a Business Glossary</li> <li>14. Coordinate with Architecture Groups</li> <li>15. Sponsor Data Stewards</li> <li>16. Embed Data Governance (C/O)</li> </ol>	<ul style="list-style-type: none"> <li>• Data Governance Strategy</li> <li>• Data Stewards</li> <li>• Business / Data Governance Strategy Roadmap</li> <li>• Data Principles, Data Governance Policies, Processes</li> <li>• Operating Framework</li> <li>• Roadmap and Implementation Strategy</li> <li>• Operations Plan</li> <li>• Business Glossary</li> <li>• Data Governance Scorecard</li> <li>• Data Governance Webinars</li> <li>• Communications Plan</li> <li>• Recaptured Data Value</li> <li>• Measuring Data Management Practices</li> </ul>
<p style="font-size: 0.6em;"><b>Suppliers:</b></p> <ul style="list-style-type: none"> <li>• Business Executives</li> <li>• Data Stewards</li> <li>• Data Owners</li> <li>• Subject Matter Experts</li> <li>• Maturity Assessors</li> <li>• Regulators</li> <li>• Enterprise Architects</li> </ul>	<p style="font-size: 0.6em;"><b>Participants:</b></p> <ul style="list-style-type: none"> <li>• Steering Committees</li> <li>• CDO / Chief Data Stewards</li> <li>• Enterprise Data Stewards</li> <li>• Coordinating Data Stewards</li> <li>• Business Data Stewards</li> <li>• Data Governance Bodies</li> <li>• Compliance Team</li> <li>• DM Initiatives</li> <li>• Change Managers</li> <li>• Enterprise Data Architects</li> <li>• Project Management Office</li> <li>• Governance Bodies</li> <li>• Audit</li> <li>• Data Professionals</li> </ul>	<p style="font-size: 0.6em;"><b>Consumers:</b></p> <ul style="list-style-type: none"> <li>• Data Governance Bodies</li> <li>• Project Managers</li> <li>• Compliance Team</li> <li>• DM Committees of Interest</li> <li>• DM Teams</li> <li>• Business Management</li> <li>• Architecture Groups</li> <li>• Partner Organizations</li> </ul>
<p style="font-size: 0.6em;"><b>Techniques:</b></p> <ul style="list-style-type: none"> <li>• Condone Messaging</li> <li>• Contact List</li> <li>• Logo</li> </ul>	<p style="font-size: 0.6em;"><b>Tools:</b></p> <ul style="list-style-type: none"> <li>• Webinars</li> <li>• Business Glossary Tools</li> <li>• Workflow Tools</li> <li>• Document Management Tools</li> <li>• Data Governance Scorecards</li> </ul>	<p style="font-size: 0.6em;"><b>Metrics:</b></p> <ul style="list-style-type: none"> <li>• Compliance to regulatory and internal data policies</li> <li>• Value</li> <li>• Effectiveness</li> <li>• Sustainability</li> </ul>

(P) Planning, (C) Control, (D) Development, (O) Operations

Source : DAMA DMBOK v2

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## Notes:

Each data domain has a 'Context Diagram'. Make sure you know these by heart. This is what exam questions will be about.

Data governance is the connecting factor between all DAMA areas. (Critical) data is proactively monitored to support the organization's strategy, vision and mission.

At the top you will find the definition and purpose of the respective area.

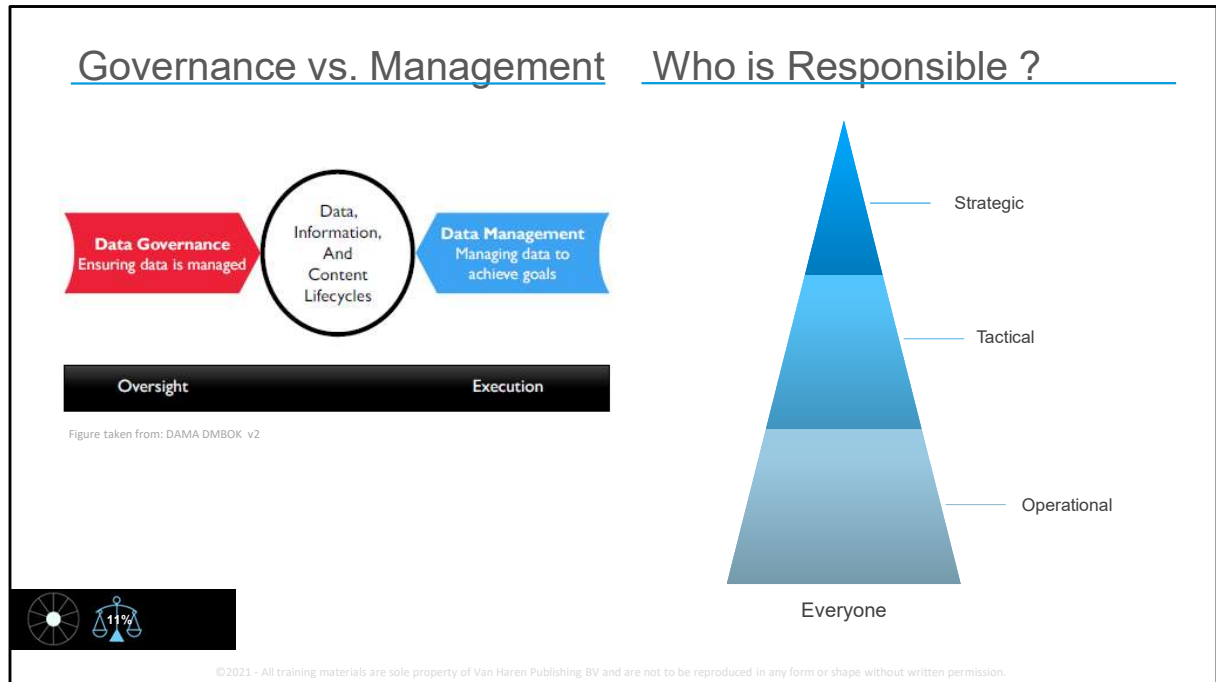
Followed by the business drivers which are divided into 'Input', 'Activities' and 'Deliverables'. For the Activities it is good to recognize that the (P) Planning, (D) Development, (C) Control, (O) Operations can be seen as the Plan, Do, Check, Act Deming Circle.

Also note that the O in governance (embed data governance/establish standards/policy) is the C in other DAMA domains.



## Program:

Data Management  
Data Governance  
Data Architecture  
Data Modeling & Design  
Data Storage & Operations  
Data Security  
Data Integration &  
Interoperability  
Document & Content  
Management  
Reference & Master Data  
Management  
Data Warehousing & BI  
Metadata Management  
Data Quality Management  
Exam, how to enroll



## Notes:

Data Governance vs. Data Management.

These two terms are often mistakenly used interchangeably. Data Governance is about knowing who is (ultimately) responsible for the data, making this transparent and ensuring that these people are also able to manage the data for which they are (ultimately) responsible. Data Management is overarching and concerns not only Data Governance but also all other DAMA areas (Architecture, Modeling, Operations, Security, etc.) and here it is more about the actual execution of the tasks. << See Figure 15 on page 72 >>.

Strategic:

At the strategic level, it is important to establish the vision of where you, as an organization, want to go and where you want to focus your efforts. This vision should be supported by a data governance board. In the Data Governance Council (DGC) there is a representation of all data domains. The chair is usually the "Chief Data Steward (Business) / Chief Data Officer".

Tactical:

At the tactical level, the strategic plans need to be translated into a policy (vision). This policy describes what reality is supposed to look like. Think for example of standards to be used, roles and responsibilities. And then appointing these people.

Operational:

At the operational level it is important that the tactical plans (policy) are converted into understandable language and implemented into the daily processes. In this way everyone is responsible for the quality of data. Think of determining one standard definition, approving new quality rules and reviewing data management issues.

## Program:

Data Management  
Data Governance  
Data Architecture  
Data Modeling & Design  
Data Storage & Operations  
Data Security  
Data Integration & Interoperability  
Document & Content Management  
Reference & Master Data Management  
Data Warehousing & BI  
Metadata Management  
Data Quality Management  
Exam, how to enroll

## Non-invasive Data Governance in practice



### Data steward

The data steward manages data on behalf of others in the best interest of the organization from the business point of view.



### Data owner

The data owner is ultimately responsible for a data set and ensures that stakeholders have access to reliable data. Data and its use are managed so that internal and external requirements are met.



### Data custodian

The data custodian manages data on behalf of others in the best interest of the organization from the IT point of view and supports the data steward.



## Notes:

Most of the time there will already be a lot in place within the organization and you don't have to start from scratch. As discussed earlier, you will first focus on where you are now and where you would like to go. Perhaps there is no one in the organization with the title 'data owner' or 'data steward' but it is often the case that persons within the organization already fulfill these roles.

Try to connect to what is already present in the organization and define the data governance organization model. Which model fits best will be different for each organization. DAMA has three forms/models:

1. Centralized, where one data governance council oversees everything.
2. Replicated, where you have a separate data governance council per business unit.
3. Federated, where you have one data governance council that coordinates multiple business units in order to maintain consistent definitions and standards.

<<see Figure 17 on page 75>>

The Data Governance Council (DGC):

Manages data governance initiatives (e.g., policy or KPI development), issues and escalations. The DGC consists of executives according to the governance organization model used.

Data owner:

The data owner is ultimately responsible for a data set and ensures that stakeholders have access to reliable data. Data and its use are managed so that internal and external requirements are met.

# Data Management Courseware

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## Data steward:

Within DAMA there are many variations of a data steward, though in practice these have been reduced to two: the data steward (business) and data custodian (IT).

The data steward works for the data owner. The data steward has a lot of knowledge about the content (key users) and is effective in analyzing and solving data issues. In addition, a data steward is a constructive and substantive discussion partner for the users of data. So, a data steward is someone you ideally don't bring in from outside your company.

Note: An organization can choose to outsource these roles, but the responsibility remains within the organization. You really need someone who knows the organization well when selecting a data steward.

## Data custodian:

The data custodian is the technical version of the data steward.

## Data consumer and data producer:

DAMA also makes a distinction between data consumer and data producer. (Consumer, sets requirements for the data. Producer, directs and manages the policies and guidelines for all data management operations and processes in order to ensure that the required data management performance levels are met).

## Program:

- Data Management
- Data Governance
- Data Architecture
- Data Modeling & Design
- Data Storage & Operations
- Data Security
- Data Integration & Interoperability
- Document & Content Management
- Reference & Master Data Management
- Data Warehousing & BI
- Metadata Management
- Data Quality Management
- Exam, how to enroll

## Increase Data Quality & integrate DMI processes in practice

Key	Summary	Issue Type	Status	Assignee	Due Date	Linked Issues	Description	Security Level	DGB Prio	Data Domain	DAMA Category	Owner DGB	Impact score
EX-728	Consumer is not offered a new rate in accordance with terms and conditions	Data Management Issue	Review	XXXX, Willem			It seems that a (large) number of subscription due dates are not on par with current terms	Internal	Normal	Backoffice	Data Quality	XXXX, Frank	12
EX-720	Consumers and agents are stored in multiple places (systems)	Data Management Issue	In Progress	XXXX, Remko		EX-464, EX-142	MTSD nr.: CR864392 Jira RFC: EX-464 Status = PO Analysis but unassigned	Internal	Normal	Backoffice	Reference & Master Data	XXXX, Frank	14
EX-954	Insurance companies regularly merge, addresses no longer correct	Data Management Issue	NEW	Unassigned				Internal	Normal	Backoffice	Data Quality	XXXX, Frank	



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## Notes:

### Improve data quality:

It is important that everyone contributes to this. Everyone has their own responsibility for good data quality and is able to do so because it is integrated into the processes.

### Data management issue process:

In order to make this a reality, a data management issue process can be used to manage the quality of the most critical data. When the monitoring of this data is clearly displayed on a KPI (key performance indicator) dashboard, it enables the data governance council to steer on this so that the vision is guaranteed.