



INTRODUCING THE DSDM® AGILE PROJECT FRAMEWORK (LESSON 08)

PHÂN TÍCH YÊU CẦU PHẦN MỀM (SOFTWARE REQUIREMENTS)



CONTENTS

- The Agile Manifesto
- DSDM Framework & History
- The structure of DSDM
- The philosophy and principles of DSDM
- When to use DSDM





MANIFESTO FOR AGILE SOFTWARE DEVELOPMENT

We are uncovering ***better ways of developing software*** by doing it and helping others do it.
Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on
the right, we value the items on the left more.

<https://agilemanifesto.org/> (2001)



WHAT IS AGILE?

There is a family of approaches:

- DSDM (Dynamic Systems Development Method)
- LSD (Lean Software Development)
- FDD (Feature-Driven Development)
- XP (Extreme Programming)
- **Scrum**
- ... and others

<https://project-management.com/xp-fdd-dsdm-and-crystal-methods-of-agile-development/>



WHAT IS DSDM?

DSDM Agile Project Framework (2014 Onwards)

(DSDM: Dynamic Systems Development Method)

It's an Agile Project Delivery Framework that delivers the **right solution at the right time**. It is applicable to any kind of project. Key characteristics are:

- Focused on business benefit;
- On-time and in budget;
- Quality and rigour;
- Incremental and Collaborative.

THE HISTORY OF DSDM

DSDM was published in 1995 by the **DSDM Consortium** (fully compatible with ISO 9000 and PRINCE2).

In 2007, it was rebranded Atern after the bird Arctic Tern.



Since 2014, it has reverted back to its original name as DSDM Agile Project Framework.

Also, in 2016, the DSDM Consortium rebranded as the Agile Business Consortium.

Several customers: British Airways, American Express, Oracle and Logica.



THE HISTORY OF DSDM

DSDM Consortium formed
DSDM V1 (V2 1995)

1994/5

DSDM V4 (2002)
Published online
V4.1 (2003)

1997

2002/3

DSDM made
free to view
free to use

2006

2007

DSDM Agile Project
Management
Framework
V6

2008

2014

DSDM
V3

Agile Manifesto
signed
2001
(DSDM =
signatory)

DSDM V4.2
Published Online

DSDM Atern
V5



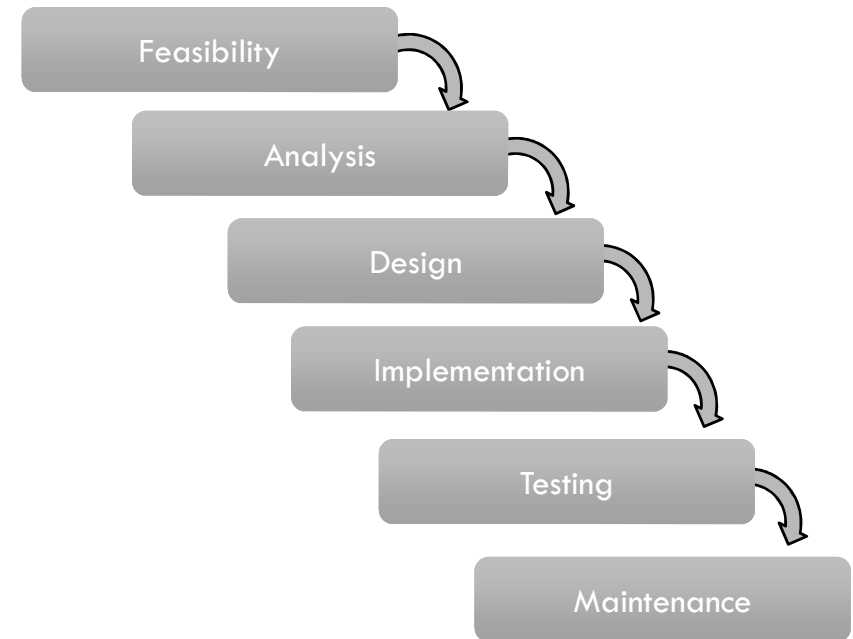
WHERE DOES AGILE COME FROM?

In 1956, Herbert D Benington described a process of development at a conference on advanced programming methods for digital computers. In 1970, Winston Royce wrote an article entitled: “Managing the Development of Large Software Systems”.

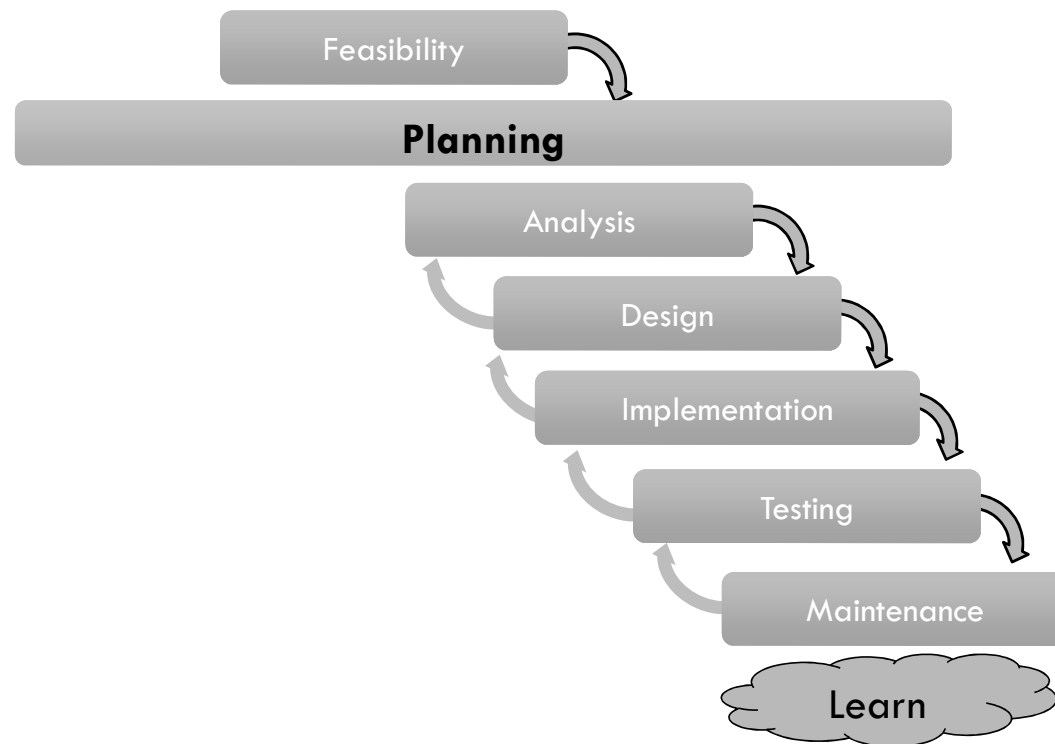
These ideas formed the basis of what we know as the The **Waterfall Model**. Agile Development uses the stages from the Waterfall Model, but addresses **its inadequacies**.

WHAT IS THE WATERFALL MODEL?

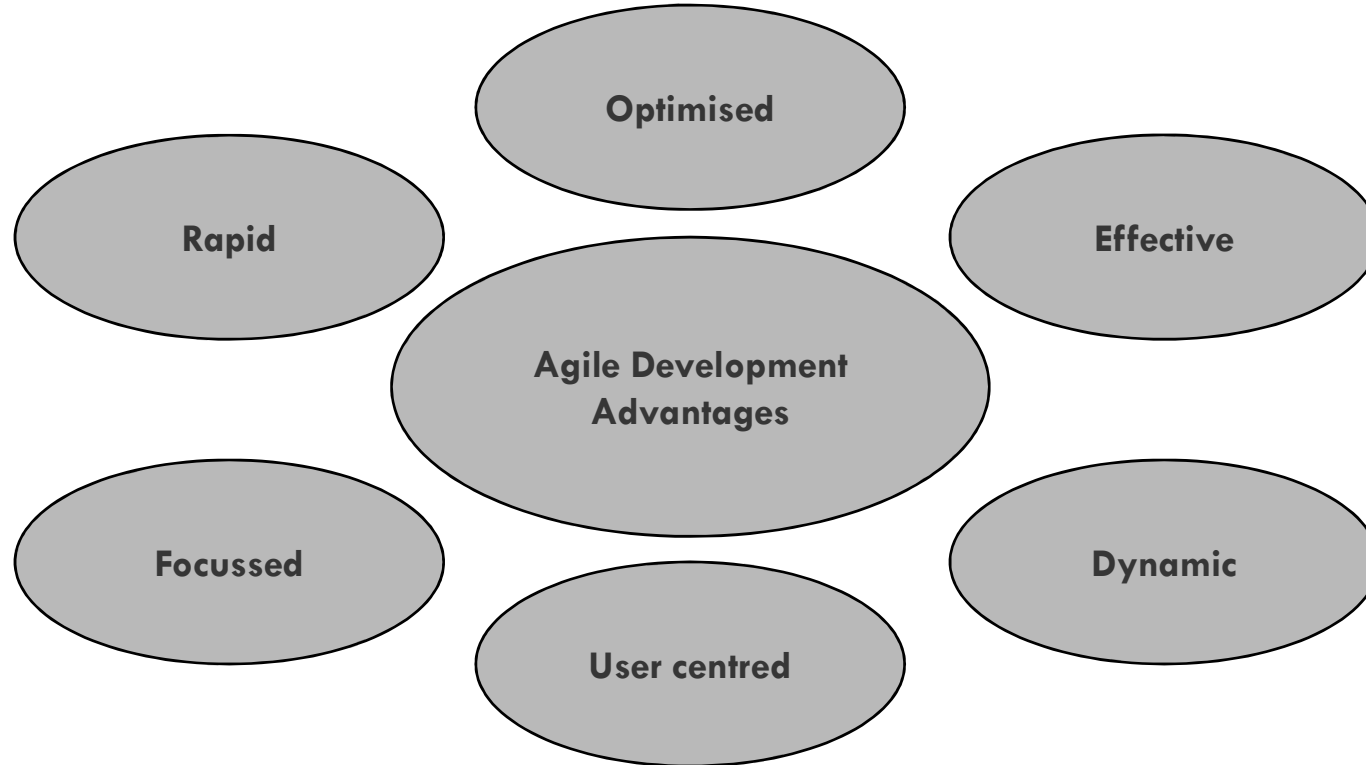
The Waterfall Model is a sequential development model. It insists on each stage of the development process to be completed before moving on to the next step.



AGILE IS ITERATIVE, INCREMENTAL, EVOLUTIONARY



ADVANTAGES OF AGILE DEVELOPMENT





WHAT IS DSDM?

DSDM Agile Project Framework (2014 Onwards)

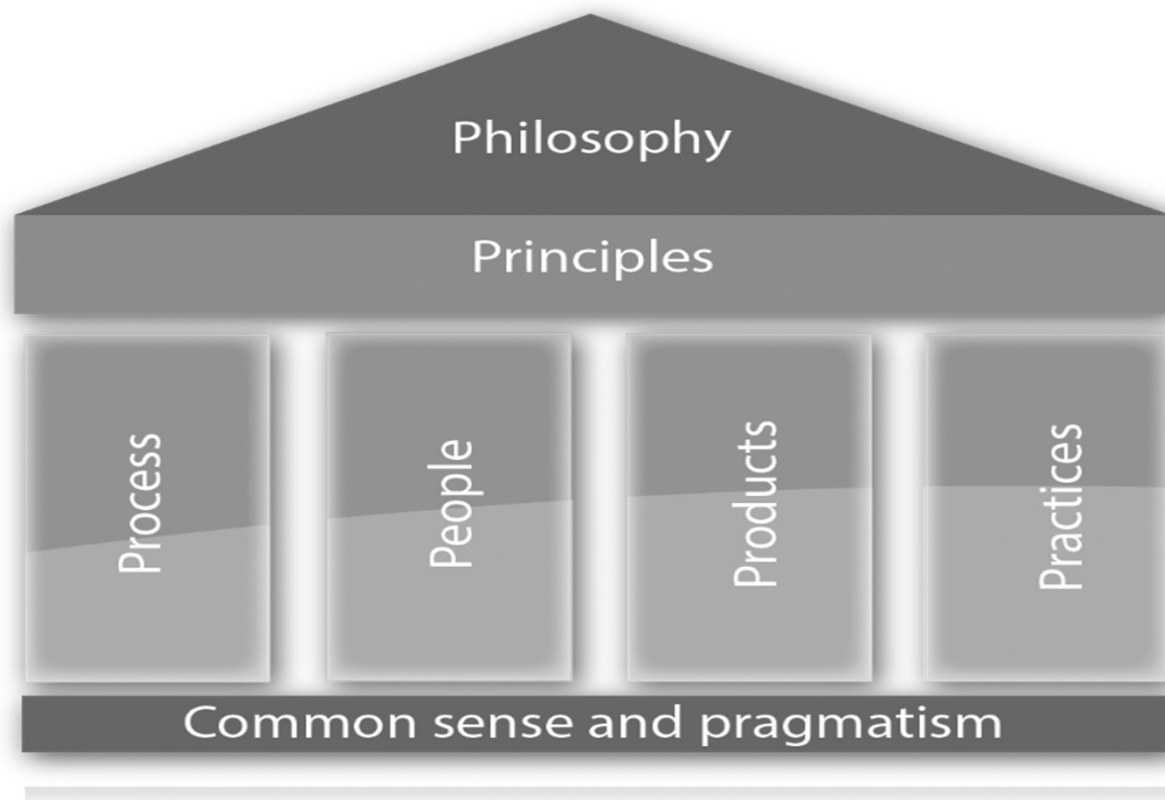
(DSDM: Dynamic Systems Development Method)

It's an Agile Project Delivery Framework that delivers the **right solution at the right time**. It is applicable to any kind of project. Key characteristics are:

- Focused on business benefit;
- On-time and in budget;
- Quality and rigour;
- Incremental and Collaborative.



THE STRUCTURE OF DSDM



Source: Image from dsdm.org © 2016



THE PHILOSOPHY

- Two important points to consider are:
 - Any project must be aligned to clearly defined strategic goals;
 - Any project must focus upon early delivery of real benefits to the business.



THE PHILOSOPHY

This is best achieved when key stakeholders ...

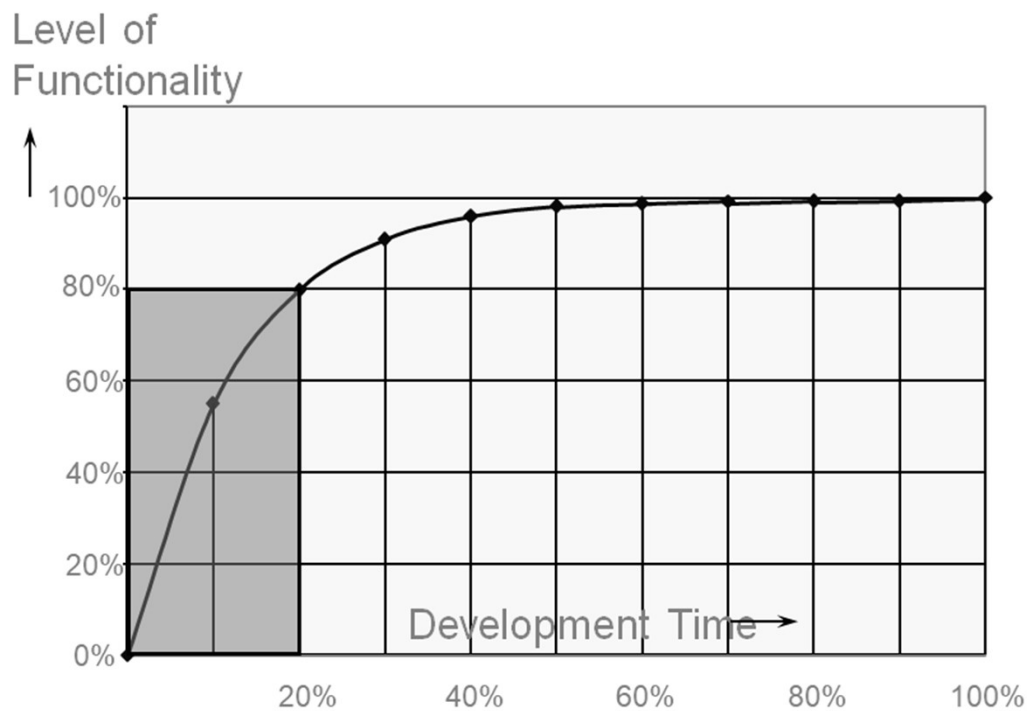




THE BENEFITS OF DSDM

- The advantages of DSDM are:
 1. User ownership of the system is more likely
 2. Reduced risk of building the wrong system
 3. The final system is more likely to meet the users' real business requirements
 4. Users will be better trained
 5. Deployment is more likely to go smoothly

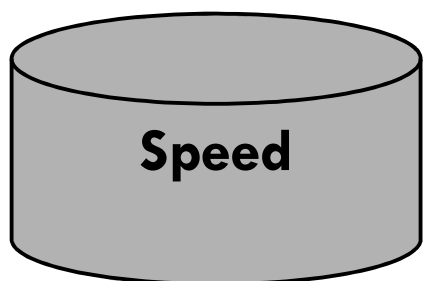
THE 80/20 APPROACH



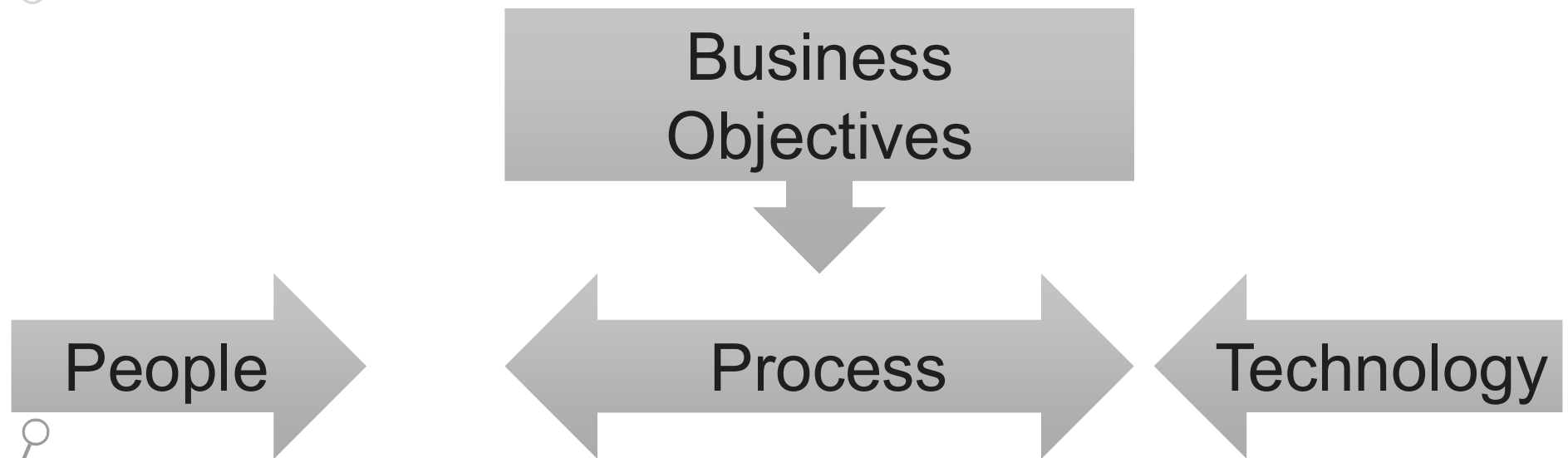
Fundamental Assumption:
Nothing is built perfectly first time,
but 80% of the solution can be produced
in 20% of the time it would take to produce
the total solution.

PARETO

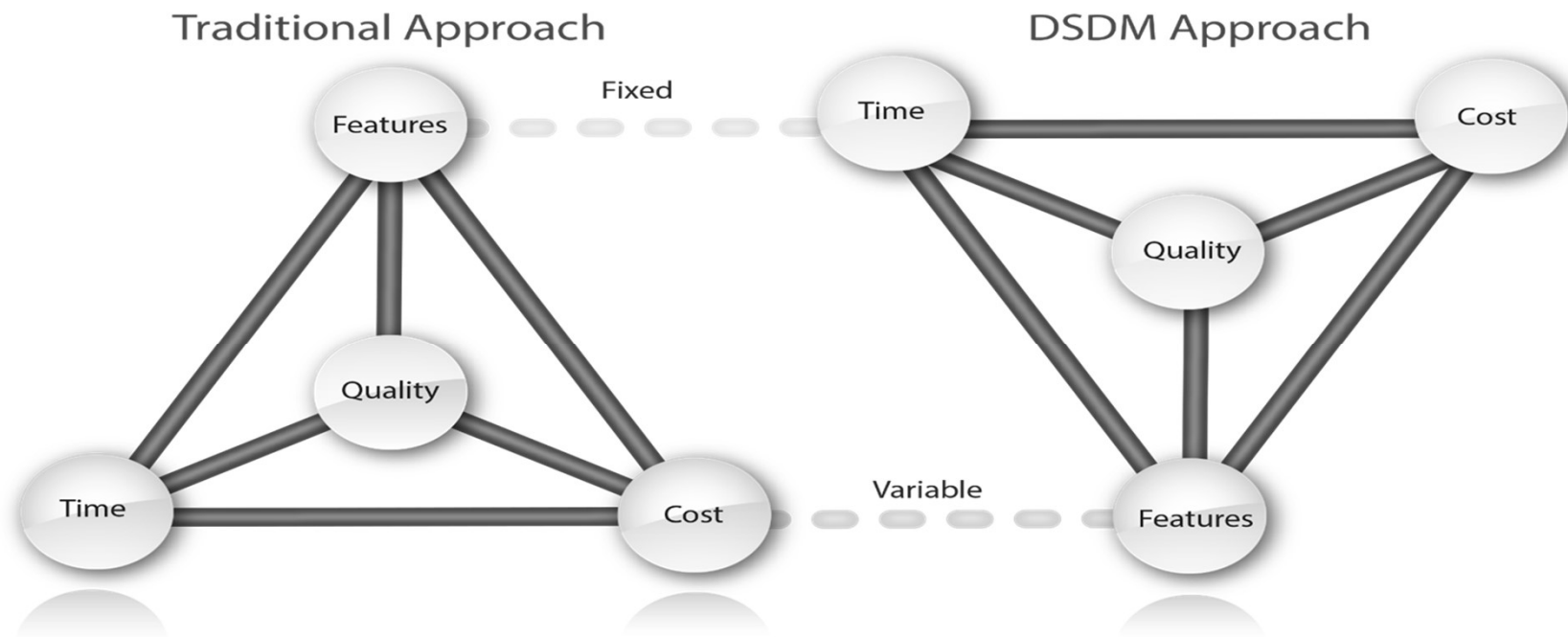
A QUESTION OF BALANCE



COMPONENTS OF A BUSINESS SOLUTION



FLEXIBLE REQUIREMENTS



Source: Image from dsdm.org © 2016



PRIORITISATION

DSDM uses the MoSCoW prioritisation model.

Concentrating approximately 60% of the project on the 'Must Have' requirements, and around 20% on the 'Could Have' requirements.

In scope
for this timeframe

(Project / Increment / Timebox)

Must Have



Typically
no more
than
60% effort

Should Have



Could Have



Typically
around
20% effort

Source: Image from dsdm.org © 2016

EXAMPLE FOR THE PRIORITY

Nghị định số 43/2011/NĐ-CP của Chính phủ : Quy định về việc cung cấp thông tin và dịch vụ công trực tuyến trên trang thông tin điện tử hoặc cổng thông tin điện tử của cơ quan nhà nước:

- **Dịch vụ công trực tuyến mức độ 1:** là dịch vụ bảo đảm cung cấp đầy đủ các thông tin về thủ tục hành chính và các văn bản có liên quan quy định về thủ tục hành chính đó.
- **Dịch vụ công trực tuyến mức độ 2:** là dịch vụ công trực tuyến mức độ 1 và cho phép người sử dụng tải về các mẫu văn bản và khai báo để hoàn thiện hồ sơ theo yêu cầu. Hồ sơ sau khi hoàn thiện được gửi trực tiếp hoặc qua đường bưu điện đến cơ quan, tổ chức cung cấp dịch vụ
- **Dịch vụ công trực tuyến mức độ 3:** là dịch vụ công trực tuyến mức độ 2 và cho phép người sử dụng điền và gửi trực tuyến các mẫu văn bản đến cơ quan, tổ chức cung cấp dịch vụ. Các giao dịch trong quá trình xử lý hồ sơ và cung cấp dịch vụ được thực hiện trên môi trường mạng. Việc thanh toán lệ phí (nếu có) và nhận kết quả được thực hiện trực tiếp tại cơ quan, tổ chức cung cấp dịch vụ.
- **Dịch vụ công trực tuyến mức độ 4:** là dịch vụ công trực tuyến mức độ 3 và cho phép người sử dụng thanh toán lệ phí (nếu có) được thực hiện trực tuyến. Việc trả kết quả có thể được thực hiện trực tuyến, gửi trực tiếp hoặc qua đường bưu điện đến người sử dụng.

THE 8 PRINCIPLES OF DSDM



1. Focus on the business need



2. Deliver on time



3. Collaborate



4. Never compromise quality



5. Build incrementally from firm foundations



6. Develop iteratively



7. Communicate continuously and clearly



8. Demonstrate control

Source: Image from dsdm.org © 2016

DSDM - 5 KEY TECHNIQUES



MoSCoW Prioritisation



Modelling



Facilitated Workshops



Iterative Development



Timeboxing



REFERENCE

- The DSDM Agile Project Framework. (2014). *DSDM Agile Project Framework (2014 Onwards) Handbook*. DSDM Consortium
<https://www.agilebusiness.org/page/TheDSDMAgileProjectFramework>
(Last accessed 23th September 2021)