



A black and white photograph of a multi-story university building. A large banner hangs across the front of the building with the Vietnamese text "ĐIỀU HÀNH TRƯỜNG ĐẠI HỌC CẦN THƠ". The building has many windows and a flag flying from a pole. In the foreground, there is some foliage and a paved area.

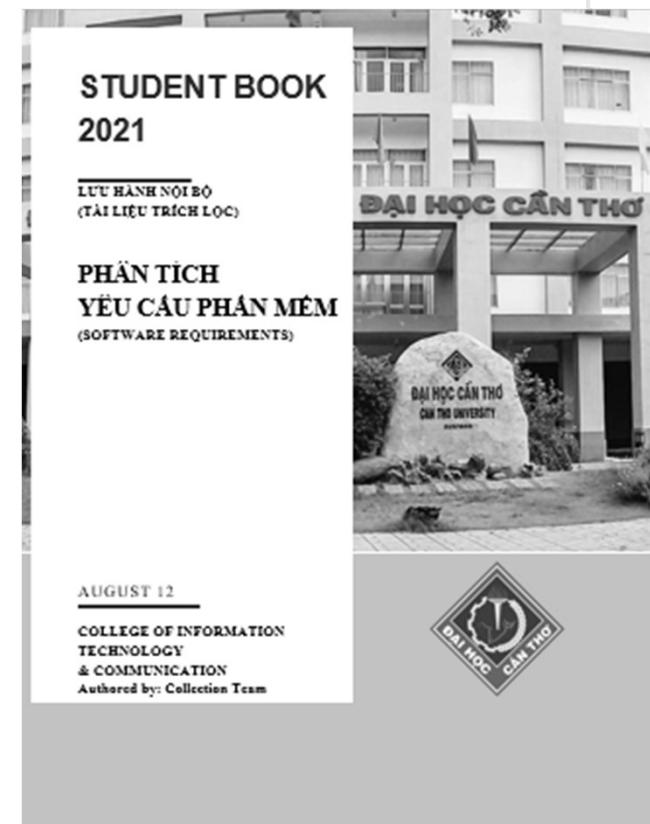
INTRODUCING THE DSDM® AGILE PROJECT FRAMEWORK

(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.

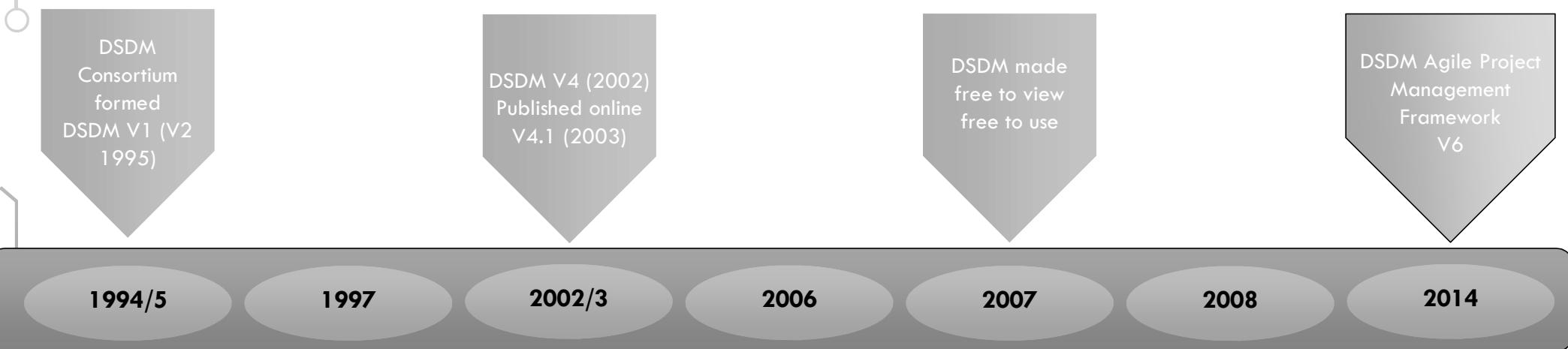


Since 2014, it has reverted back to its original name as **DSDM Agile Project Framework**.

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





WHERE DOES AGILE COME FROM?

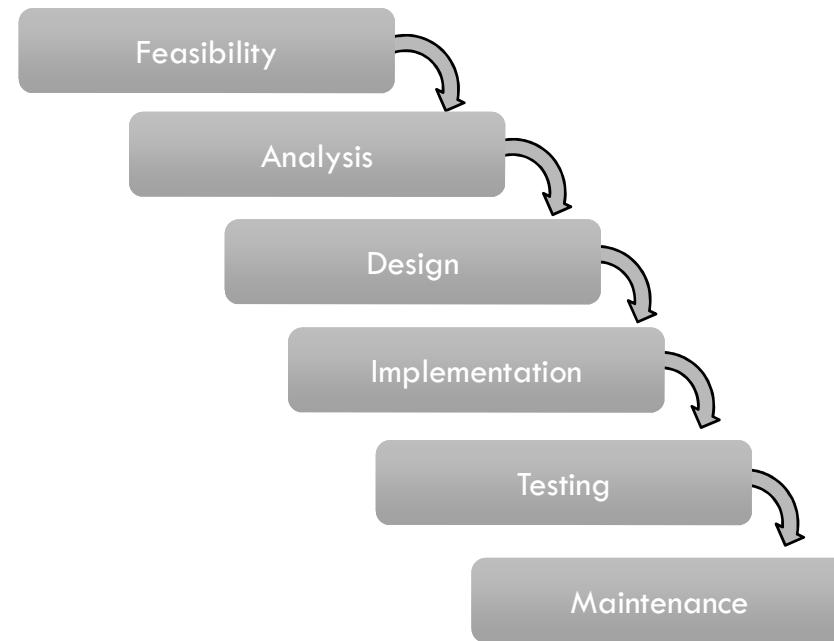
In 1956, Herbert D Benington described a process of development at a conference on advanced programming methods for digital computers. In 1970, Winston Royce wrote an article entitled: “Managing the Development of Large Software Systems”.

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**.



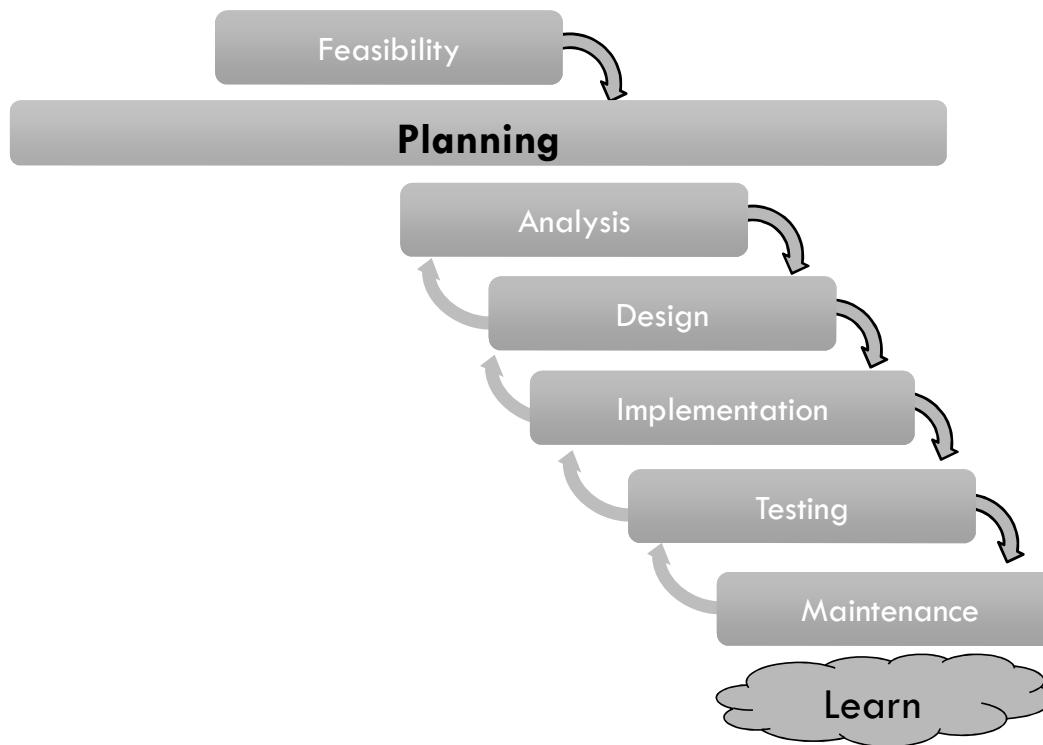
WHAT IS THE WATERFALL MODEL?

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.



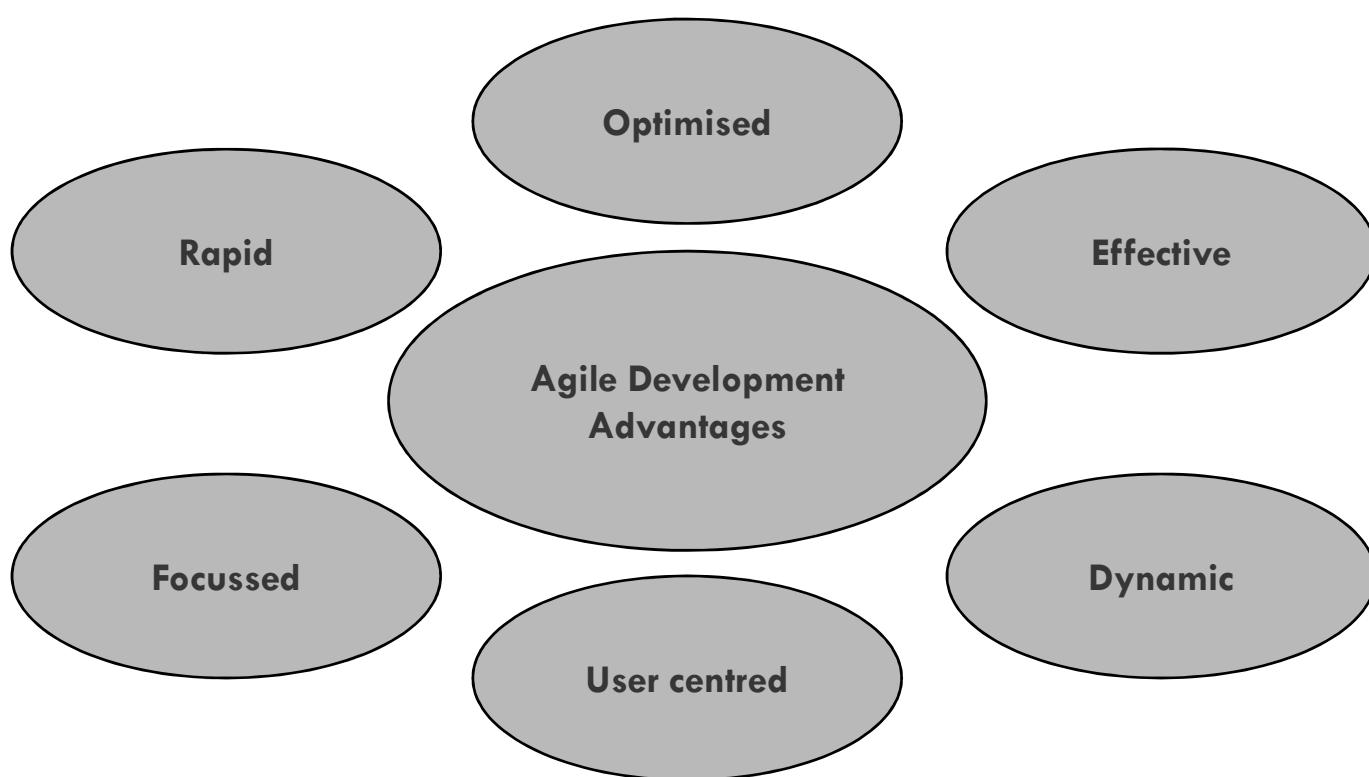


AGILE IS ITERATIVE, INCREMENTAL, EVOLUTIONARY





ADVANTAGES OF AGILE DEVELOPMENT





WHAT IS DSDM?

DSDM Agile Project Framework (2014 Onwards)

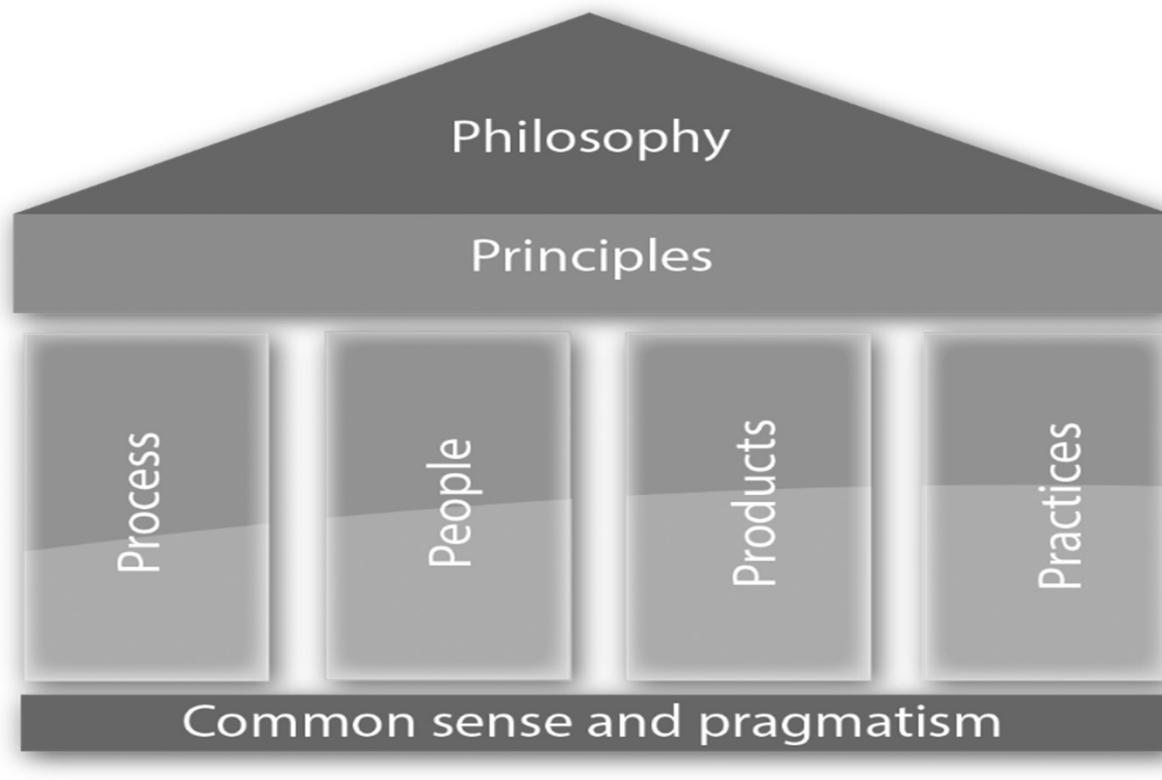
(DSDM: Dynamic Systems Development Method)

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 dsm.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 ...

Understand the
business objectives

Are empowered to an
appropriate level

Accept that change is
inevitable

Collaborate to converge on the
best possible solution, in agreed
timescale, according business
priorities

Are prepared to deliver a
fit for purpose solution

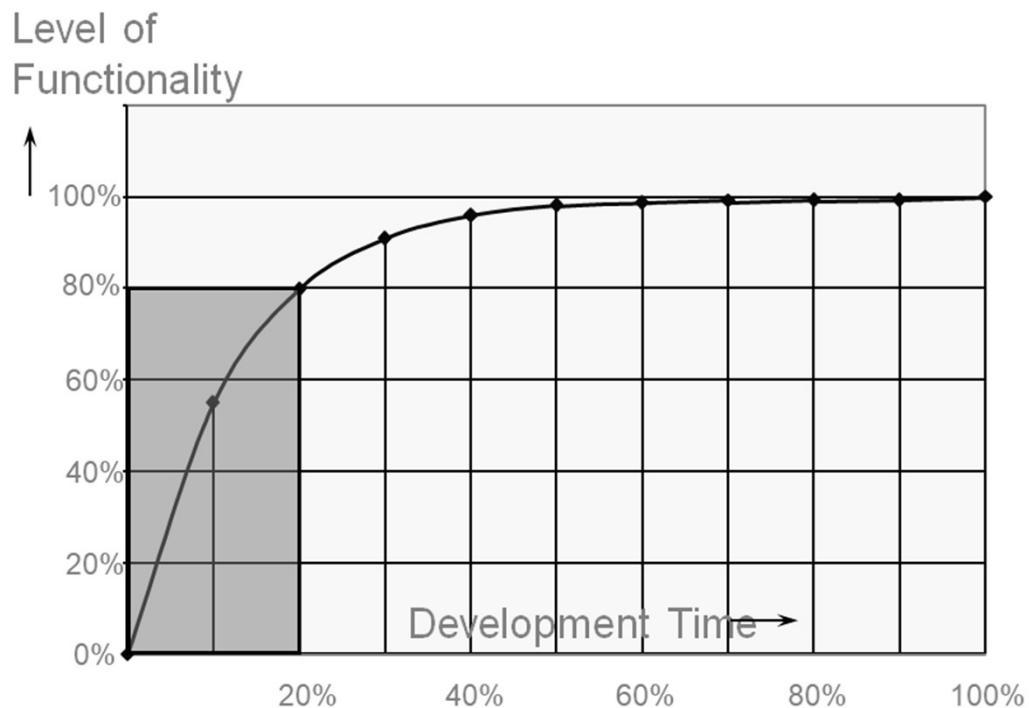




THE BENEFITS OF DSDM

- 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

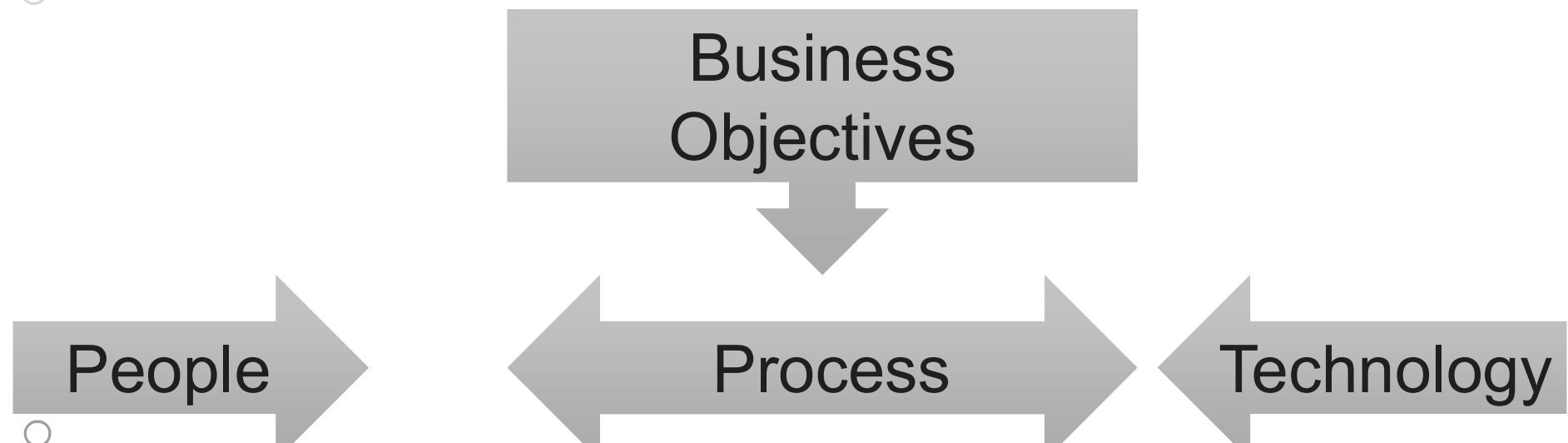
Speed



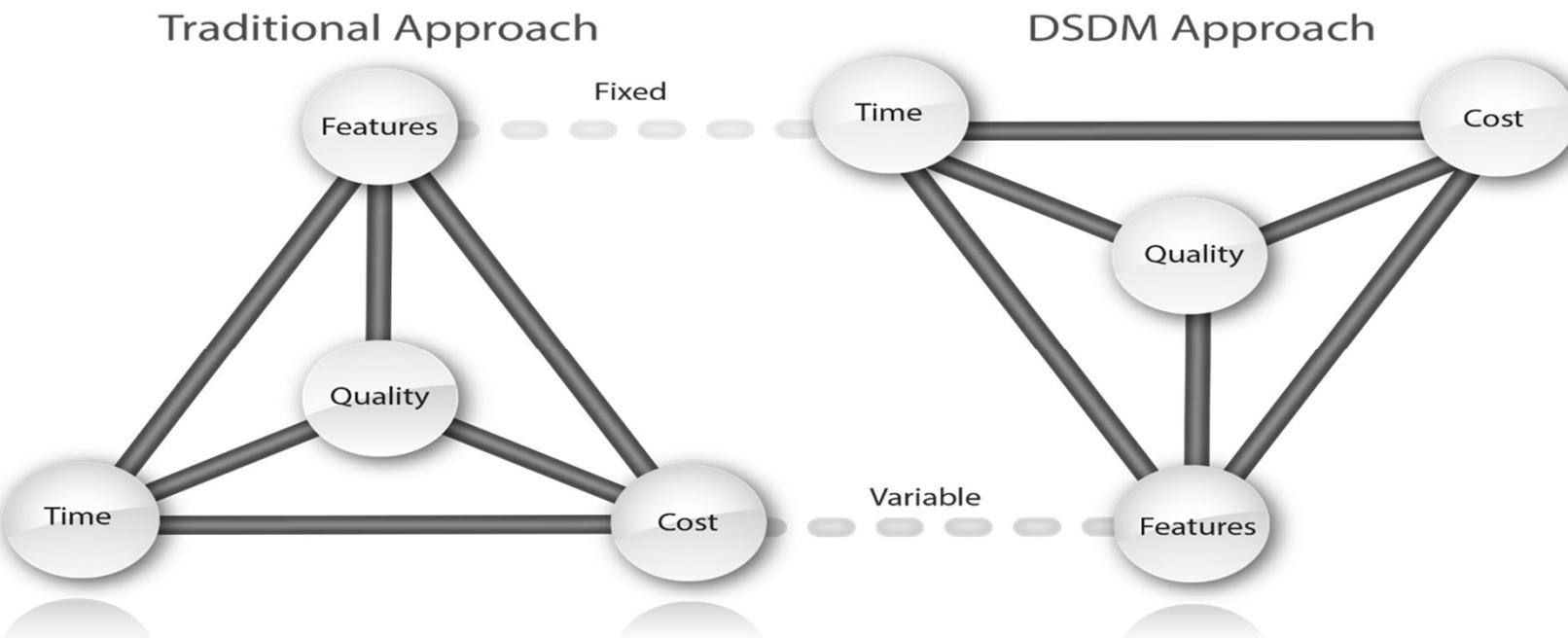
Risk Reduction



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)