

# BIM4Water 10 Year Anniversary Event



Digital Imperative & Digital Connect  
Simplex Services UK Ltd.

Birmingham  
28<sup>th</sup> November 2023

# Agenda

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Digital Imperative & Digital  
Connect



Introduction



Background & Purpose

*What do we mean by digitalisation?*



Digital Imperative

*Is digital innovation essential to solve challenges in the water industry?*



Digital Connect: Explore “WaterWatch”

*Connecting and share innovations for greater good*

# Introduction - Simplex is BIM4Water's Digital Partner

**Simplex Services** is a global IT consulting services provider delivering high value to clients through integrated, reliable, responsive and cost-effective solutions.

We help businesses improve their operational excellence and transform them into a technology-driven enterprise.

**BIM4Water** has partnered with Simplex to help the Water Companies and the ecosystem with their digital transformation initiatives.



## BOUTIQUE CONSULTANCY

A management consultancy background and the ability to elevate C-level



## INDEPENDENT PERSPECTIVE

Our independence is beneficial to customers in identifying the right fit



## PROVEN EXPERIENCE

Resolved customer problems covering strategy execution, project management

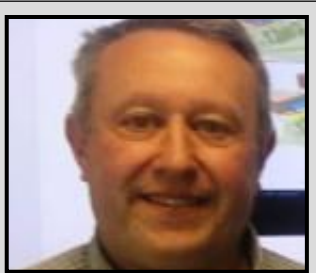


## LINE OF BUSINESS EXPERTISE

Proven experience of large-scale Enterprise Data Centre and Cloud migration and



# Introduction – this is a team effort



Tim Pearson



Martin Gooch



Andrew Collett



Clare Taylor



Mohit Bajaj



Bibhas Roy



Richard Evans



Debashish Das

A group of diverse professionals in a meeting. In the foreground, a woman with long dark hair is looking upwards and to the right with a thoughtful expression. Behind her, other people are visible, some holding up sticky notes. The background is blurred, showing a bright, modern office environment.

# **BIM4Water: Digital Imperative**

# About You

What is your functional role in the industry?

*Tip: Not your job title in your organisation.*

```
{ Examples:
```

```
    Design Consultant ;          Construction consultant ; Design and/or Construction Contractor ;  
    Head of Digital ;BIM manager;      Data Architect; etc.
```

```
}
```



## What is your functional role in the industry?



Join at  
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# Agenda

- Background and purpose  
What do we mean by digitalisation?

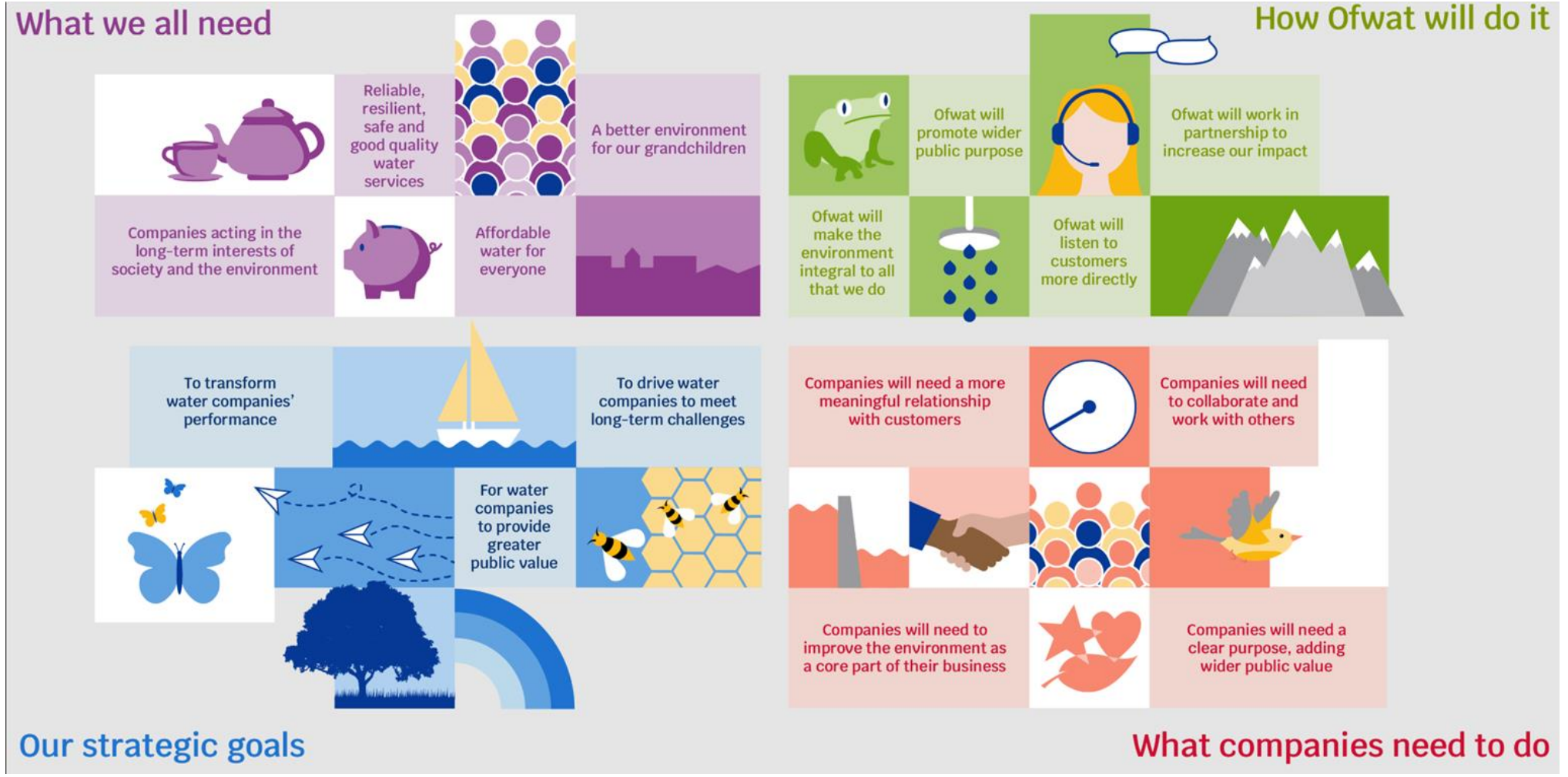
- **Digital Imperative:**  
Is digital innovation essential to solve challenges in the water industry?

- Digital Connect: Explore “WaterWatch”  
Connecting and sharing innovations for greater good



# Digital Imperative

what do we mean by digitalisation?



Source: Ofwat - Our strategy <https://www.ofwat.gov.uk/about-us/our-strategy/>

# Opportunities for Digitalisation

What are the opportunities for digitalisation in the water industry?

*Which of these areas will benefit the most from digital innovation in the next five years?*

## 1. Manage Assets Better

Examples: sensors, monitors and connecting them to for intelligence, CSO monitoring, flow monitors etc.

## 2. Prevent and fix leaks

Examples: smart networks, acoustic monitoring on water mains, citizen monitoring etc.

## 3. Reduce impact on the Environment

Examples: nature based solutions, collaboration with Defra and universities

## 4. Share innovation and learn from others

Examples: collaboration between water companies, environmental monitoring "citizen science", adoption of carbon neutral approaches

## 5. Improve customer experience

Examples: joined up customer experience, similar to retail and mobile banking



## Opportunities for digitalisation in the water industry. Which of these areas will benefit most from digitalisation in next 5 years?

Manage Assets Better



Reduce impact on the environment



Improve customer experience



Share innovation and learn from others



Prevent and fix leaks



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# Ownership and Drive

Who should drive these digital innovation initiatives?

*In your experience, is the digital strategy aligned to the business strategy?*

*Which organisation is best placed to lead and drive the digital change to expedite the digital adoption?*

1. Water Companies
2. Government – create new body or re-purpose existing.
3. Ofwat
4. Service Providers – e.g., software companies
5. Industry consortia - e.g., BIM4Water, UKWIR, Spring etc.



## Which organisation is best placed to lead and drive the digital change to expedite the digital adoption?

Water Companies



Regulator - OfWat



Industry consortia or group



Government – create new body or re-purpose existing.



Service Providers



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# Enablers of Digital Innovation

What changes are required to support and share digital innovation in the water industry for people and planet?

Tip: short sentence 5 - 10 words max.

{ Example: leadership and funding, technology platform to share innovation etc. }





What changes are required to support and share digital innovation in the water industry for people and planet?



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# Digital Connect

Digital initiatives can accelerate achieving each of the following ODI themes:

1. Customer satisfaction  
(C-Mex - Customer measure of experience)
2. Priority services  
(proportion of households on priority services register)
3. Leakage
4. Household water use
5. Supply interruptions
6. Water quality
7. Mains repairs
8. Unplanned outage
9. Sewer flooding
10. Pollution incidents
11. Sewer collapses
12. Treatment works compliance.

# Digital Connect

## Genesis of "WaterWatch"

### BIM4Water *Waterathon* October 2023:

- Everyone is innovating digitally in their own domains.
- Difficult to know who, what and where.
- Identified a gap – learn and share innovation



# Water Watch : Drive and Share Innovation

WaterWatch providing an "Open Water Library" for the Water Sector

The screenshot displays a dashboard for 'Southern Water SRN' with a progress bar at 59%. It features two main sections: 'Resources' and 'Environment', each with a table of key results. The 'Resources' section has a progress bar at 34% and a priority of P1. The 'Environment' section has a progress bar at 63% and a priority of P0. Both sections include a 'Details' dropdown menu.

**Southern Water SRN** PROGRESS 59%

Owner: [Ellie](#) Share this space + Create Objective Sort

**MANAGE** **DASHBOARD**

**OBJECTIVE** P1 PROGRESS 34%

**Resources**  
Achieve by end of Q4 2023

KEY RESULTS	PROGRESS	PRIORITY
Increase volume of treated effluent available for direct reuse by customers to 5,070m3	39%	P1
24% renewable electricity generated as a percentage of our total electricity consumption	25%	P0
100% disposal of bioresources in a way that is compliant with the Sludge Regulations	63%	P2

**OBJECTIVE** P0 PROGRESS 63%

**Environment**  
Achieve by end of Q4 2023

KEY RESULTS	PROGRESS	PRIORITY
Improve 537.2 km of rivers, by delivery of specified schemes in the WINEP	37%	
Maintain a minimum of 57 bathing waters at the 'Excellent' standard	53%	
Natural capital accounts in place for three out of 10 of our river catchments	67%	
Deliverin the third phase of the Thanet sewers project by 2024-25.	100%	
100% of our CSOs monitored and for data to be fully accurate by 2024-25	60%	
Reduce abstraction from the River Itchen to an average of 15 ML/d below its abstraction limit	33%	

# Digital Connect: Enable Visibility and Transparency

“WaterWatch” connecting the what to the why?

The screenshot displays the Stellafai digital dashboard. The top navigation bar includes the Stellafai logo, 'Spaces // Outcome Teams', a 'NORTH STAR' indicator, and a user profile. The main content area is titled 'Outcome Teams' and is part of the 'BIM4Water - Waterathon' space. It features a sidebar with navigation options like 'Spaces', 'VIEW', 'Grid', 'Bar Chart', 'Scheduling', 'Activity', 'ORGANISE', 'Export', 'Integration', 'HELP', 'Methods', 'Key Terms', 'FAQ', and 'ADMIN'. The main area shows a 'Progress 0%' indicator for the 'OFwat Strategy Team' led by 'Elle Hill'. Below this, there are four 'Innovation Projects' cards, each with a 'Progress 0%' indicator and a brief description of the project. The projects are: 'Wastewater Inlet Screens', 'Acoustic Leak Detection', 'Buried Asset Location Discovery', and 'AI Sensors'. The 'AI Sensors' card shows a 'Progress 73%' indicator. A 'Feedback' button is visible on the right side of the dashboard.



# Digital Connect: Measuring Outcome using AI

The screenshot displays a software interface for managing objectives. The main area shows two objective cards, each with a 'Create your first Key Result' button. The first objective is 'Predicting early blockage formations before they become service failures (i.e. pollution or flooding incidents)' with a deadline of 'Achieve by end of Q4 2023'. The second objective is 'Ability to differentiate genuine control room alarms from those triggered simply because of high volumes of rainfall' with a deadline of 'Achieve by end of Q4 2023'. A chat window on the right, titled 'CREATE KEY RESULT', shows a conversation with 'ARMSTRONG' where the user asks for suggestions and the AI responds with a suggestion to write their own.

Sparks // Outcome Teams // Objectives

AI to Detect Early Blockage Formations PROGRESS 0%  
Owner: Elite

MANAGE DASHBOARD

OBJECTIVE - P1

Predicting early blockage formations before they become service failures (i.e. pollution or flooding incidents)  
Achieve by end of Q4 2023

Create your first Key Result

ARMSTRONG  
Want me to draft some Key Results for you?

OBJECTIVE - P2

Ability to differentiate genuine control room alarms from those triggered simply because of high volumes of rainfall  
Achieve by end of Q4 2023

Create your first Key Result

ARMSTRONG  
Want me to draft some Key Results for you?

CREATE KEY RESULT

ARMSTRONG  
Answer at least one question and I'll give you a suggestion! the more the better my suggestion will be.

WHAT IS YOUR'S COMPANY'S MISSION OR NORTH STAR?

Our vision is to make the greatest contribution possible to life through water.

WHAT ARE YOUR ORGANISATION'S STRATEGIC OBJECTIVES FOR THIS YEAR?

Enter

DO YOU HAVE ANY PLANNED WORK THAT WILL HELP YOU ACHIEVE THIS OBJECTIVE?

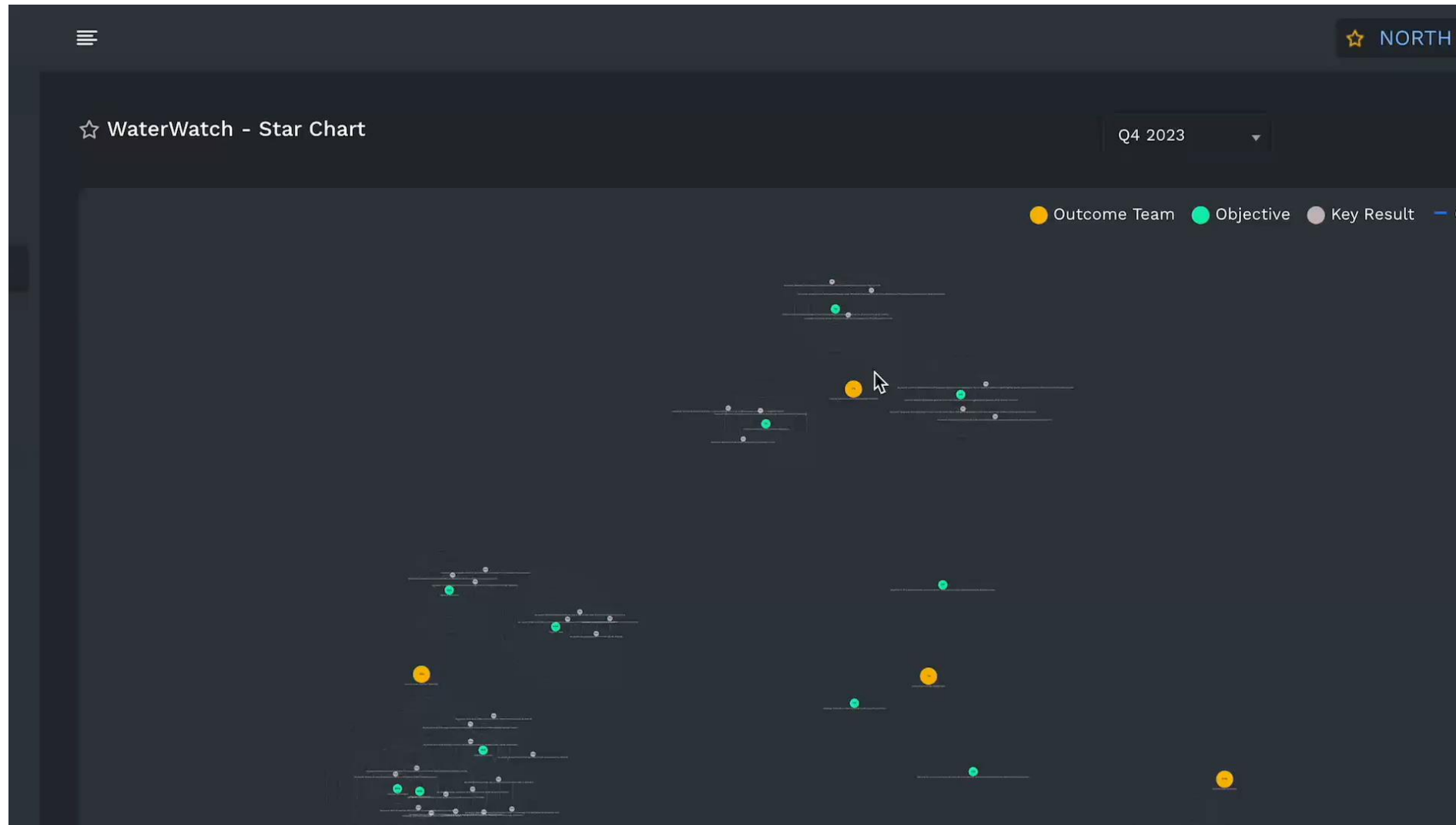
Enter

Thinking

Suggest Key Result Actually, I'll write my own

# Digital Connect: Collaboration and Sharing

Learn and share innovation, WaterWatch linking the innovations to the bigger purpose








# Recap: Purpose


## What we all need

	Reliable, resilient, safe and good quality water services		A better environment for our grandchildren
Companies acting in the long-term interests of society and the environment		Affordable water for everyone	

## How Ofwat will do it

	Ofwat will promote wider public purpose		Ofwat will work in partnership to increase our impact
Ofwat will make the environment integral to all that we do		Ofwat will listen to customers more directly	

To transform water companies' performance		To drive water companies to meet long-term challenges
	For water companies to provide greater public value	
		

Companies will need a more meaningful relationship with customers		Companies will need to collaborate and work with others
		
Companies will need to improve the environment as a core part of their business		Companies will need a clear purpose, adding wider public value

## Our strategic goals

## What companies need to do

Source: Ofwat - Our strategy <https://www.ofwat.gov.uk/about-us/our-strategy/>

# Recap and Summary

Digital Innovation is essential to support all the strategic objectives

Digital Innovation is happening across the ecosystem and people are collaborating

Digital Connect is a challenge

WaterWatch – technology (including AI) can help but participation is the main success criteria



# Next steps

Details from this session will be published via the Simplex microsite



Explore further?

1. *Book advisory call with the team*
2. *Play back to your organisation? Book a follow up session*

<https://simplex-services.com/advisory/>



# Thank you!

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[simplex-services.com](https://simplex-services.com)

[@simplexsvcs](https://twitter.com/simplexsvcs) | [info@simplex-services.com](mailto:info@simplex-services.com) | +44 1273041146