



National
Innovation
Centre
Data

Automation of digital processes and data

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Department for
Business, Energy
& Industrial Strategy



Engineering and
Physical Sciences
Research Council

NICD: helping clients to solve their own problems with data



NICD aims to get data skills into UK organisations

In order to:

1. Lower business costs,
2. Create new products & services and
3. Create compelling customer experiences

Collaborators & Clients

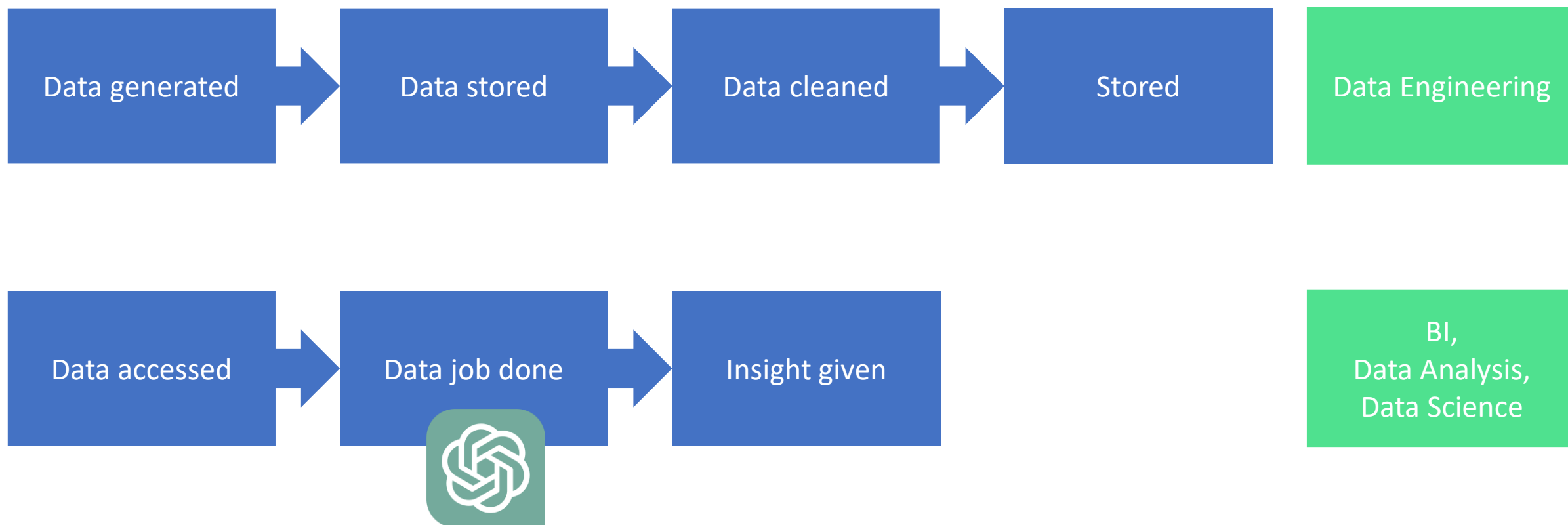


Automation in Data and Processes

- What is automation in data and processes?
- Types of automation
- When to automate and when to focus elsewhere
- When to Automate and when not to automate

Automation in data and digital

Data automation should follow a pipeline



Automation allows 'jobs' to be done quicker and easier by more people

Photographer admits prize-winning image was AI-generated

German artist Boris Eldagsen says entry to Sony world photography awards was designed to provoke debate

Jamie Grierson

Twitter: @JamieGrierson

Mon 17 Apr 2023 17:49 BST

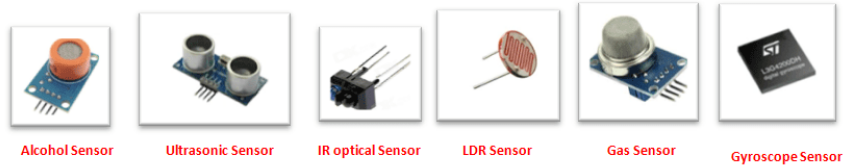


"Promptography"

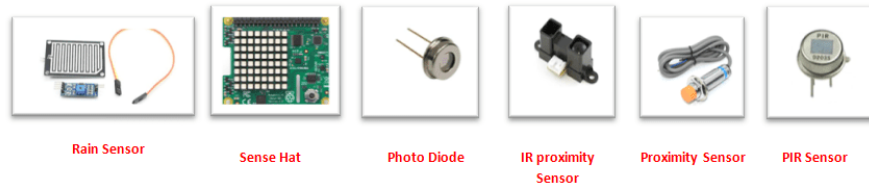


Automating data generation

Physical sensors

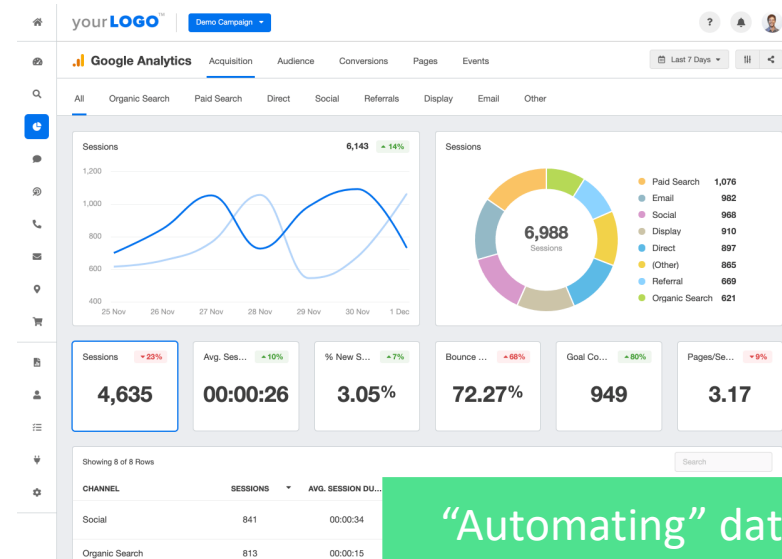


Different types of Sensors

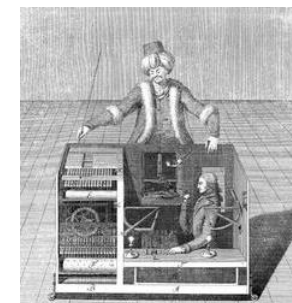


iot4beginners.com

Non-physical sensors



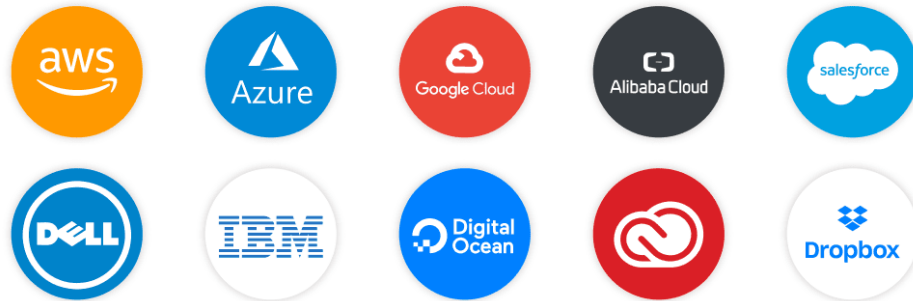
“Automating” data generation



Automating storage

Cloud storage

Top 10 Cloud Providers



allcode.com

Adding data to storage

Leading serverless providers



symphony-solutions.com

Automating data cleaning

Coding tools

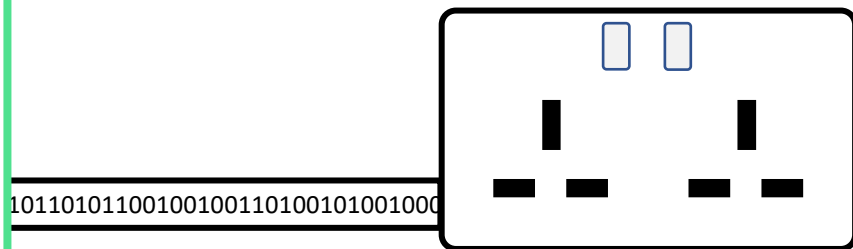


Drag and drop tools



Automating data access

Application Programming Interfaces (APIs)



A screenshot of the BBC Weather website. The page features a navigation bar with the BBC logo and links for Home, News, Sport, Weather, iPlayer, Sounds, and Bitesize. A search bar is located in the top right corner. The main content area is titled "WEATHER" and includes a search input field. Below this, there is a "UK Summary" section with a map of the United Kingdom showing weather icons for various locations: Lerwick, Inverness, Edinburgh, Belfast, Manchester, Hull, Cardiff, and London. A "UK flood warnings issued" alert is displayed in a black box. The "Today" section shows the current weather for "Home NE10" as "Sunny and a moderate breeze" with a high of 12°C and a low of 4°C. A 5-day forecast table is also visible, showing weather icons and temperature ranges for each day.

Thu 20th	Fri 21st	Sat 22nd	Sun 23rd
12° 6°	11° 8°	11° 7°	9° 3°

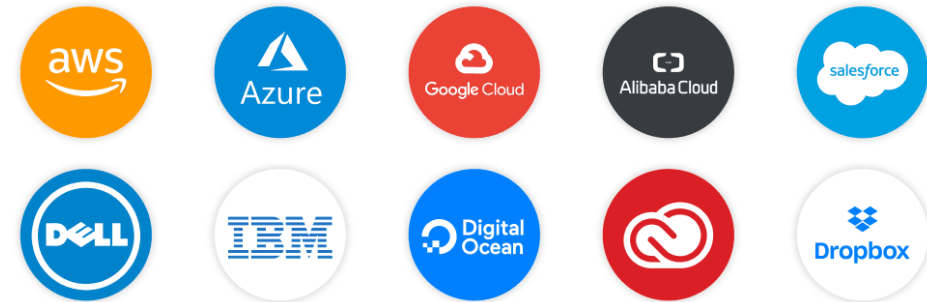
Automating data jobs done

Data Job process



Places to run it

Top 10 Cloud Providers



allcode.com/cloud-providers

Automating insight given

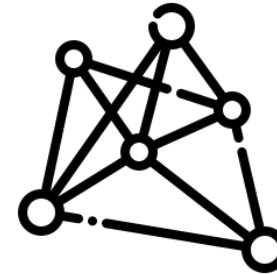
Reports



Dashboards

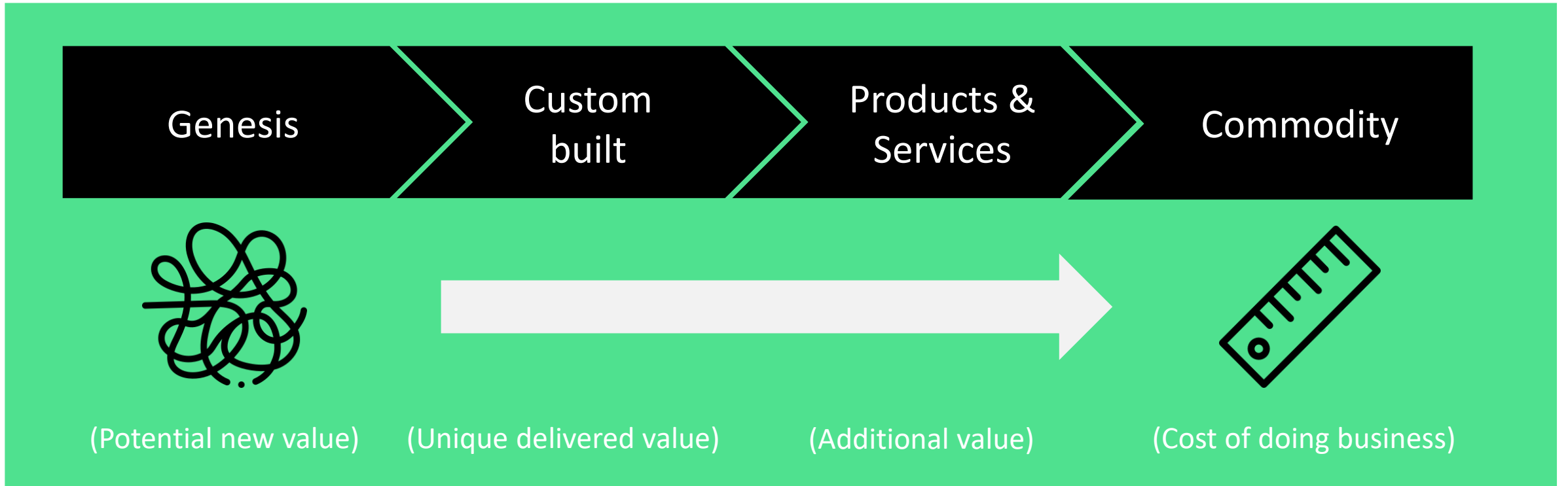


Models

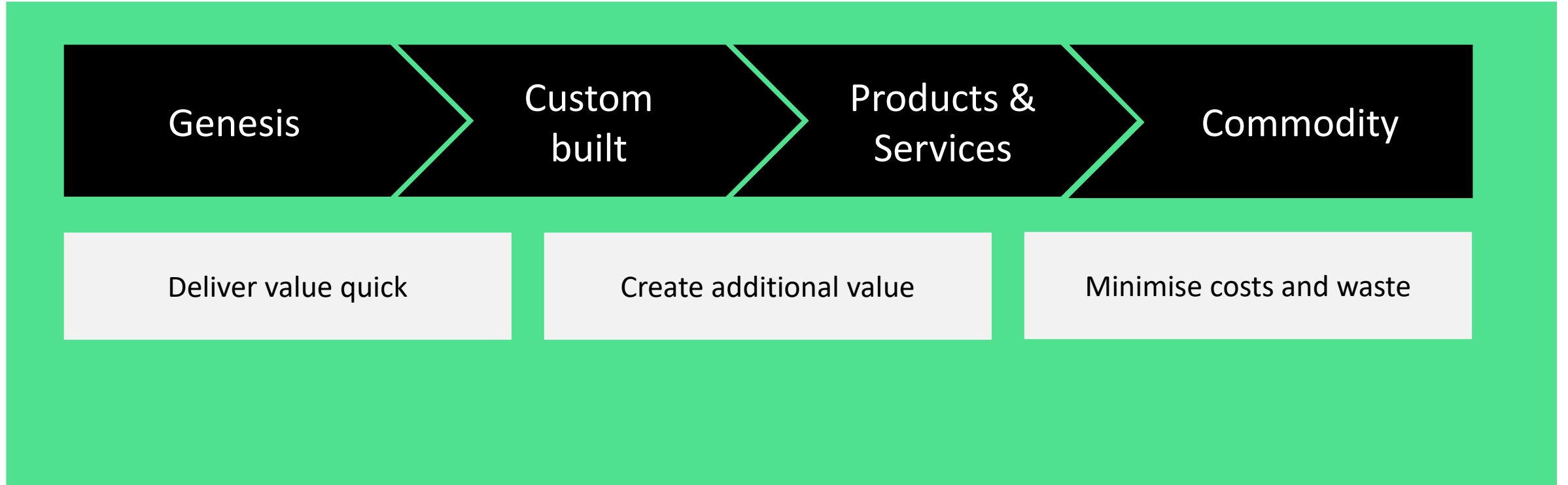


When should we automate?

All ideas evolve and change their characteristics



Focus automation on priority at each stage of evolution



Data and digital automation needs:

- Understand of elements in process
- Understanding of focus needs
- An idea of where to start: capabilities, technology and skills



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Thankyou!



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