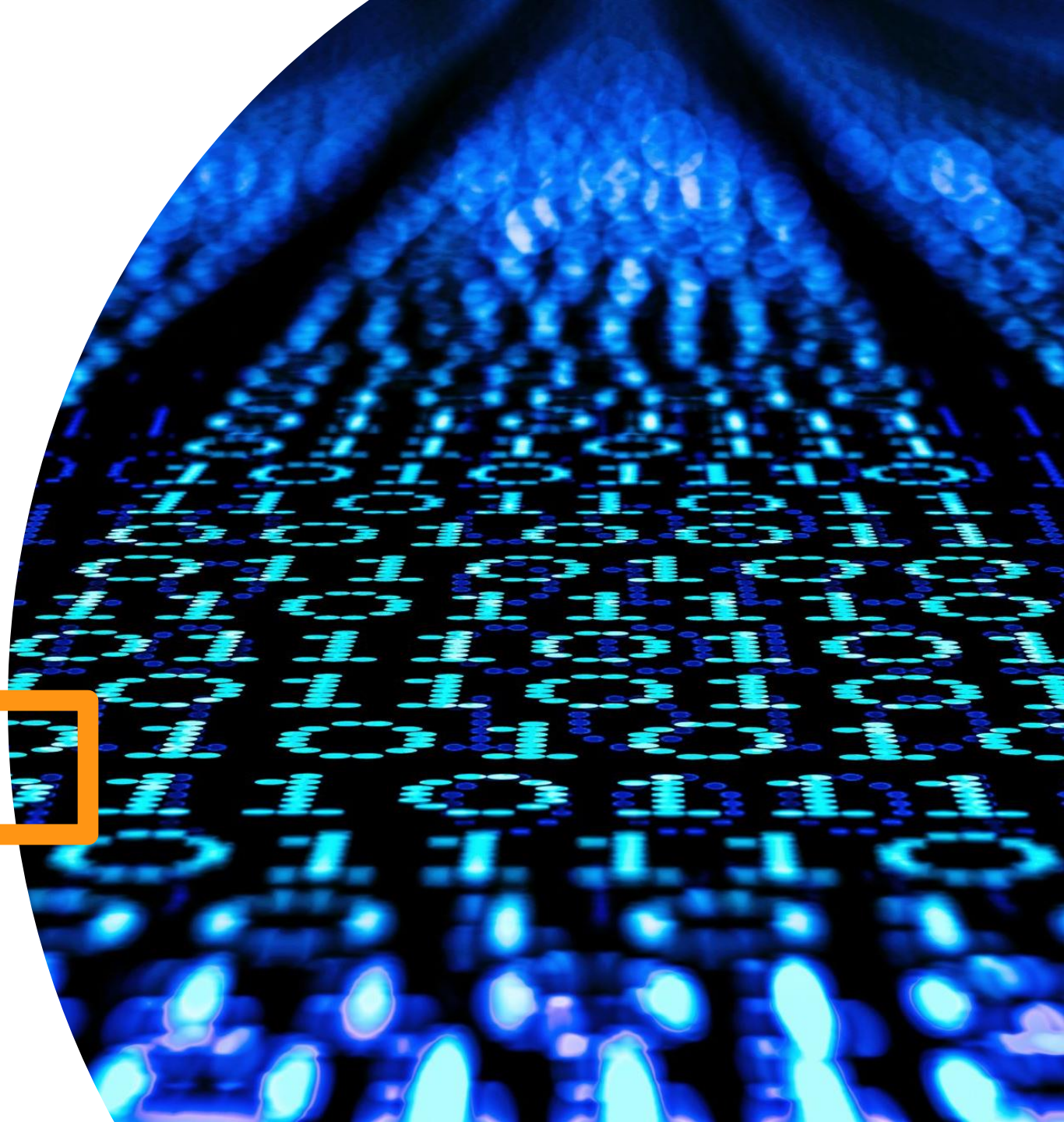




Data and Information

Individual Task #2





Importance of Data and Information

Data and Information is used:

- Text documents
- Software Programs
- Audio Clips

Challenges in Data and Information:

- Storage
- Processing
- Security

WHAT IS DATA?



Data is a collection of unprocessed facts and numbers.



It may comprise of texts, numbers and symbols or images.



It is used to relay something but is not organized in any way






WHAT IS INFORMATION?

- Analyzing and interpreting data is what information concerns itself about in genera. Furthermore, it can be utilized independently.
- In contrast to data, information can be used on its own while the opposite can be said otherwise.
- Not only that data in itself is unstructured whereas information is organized.



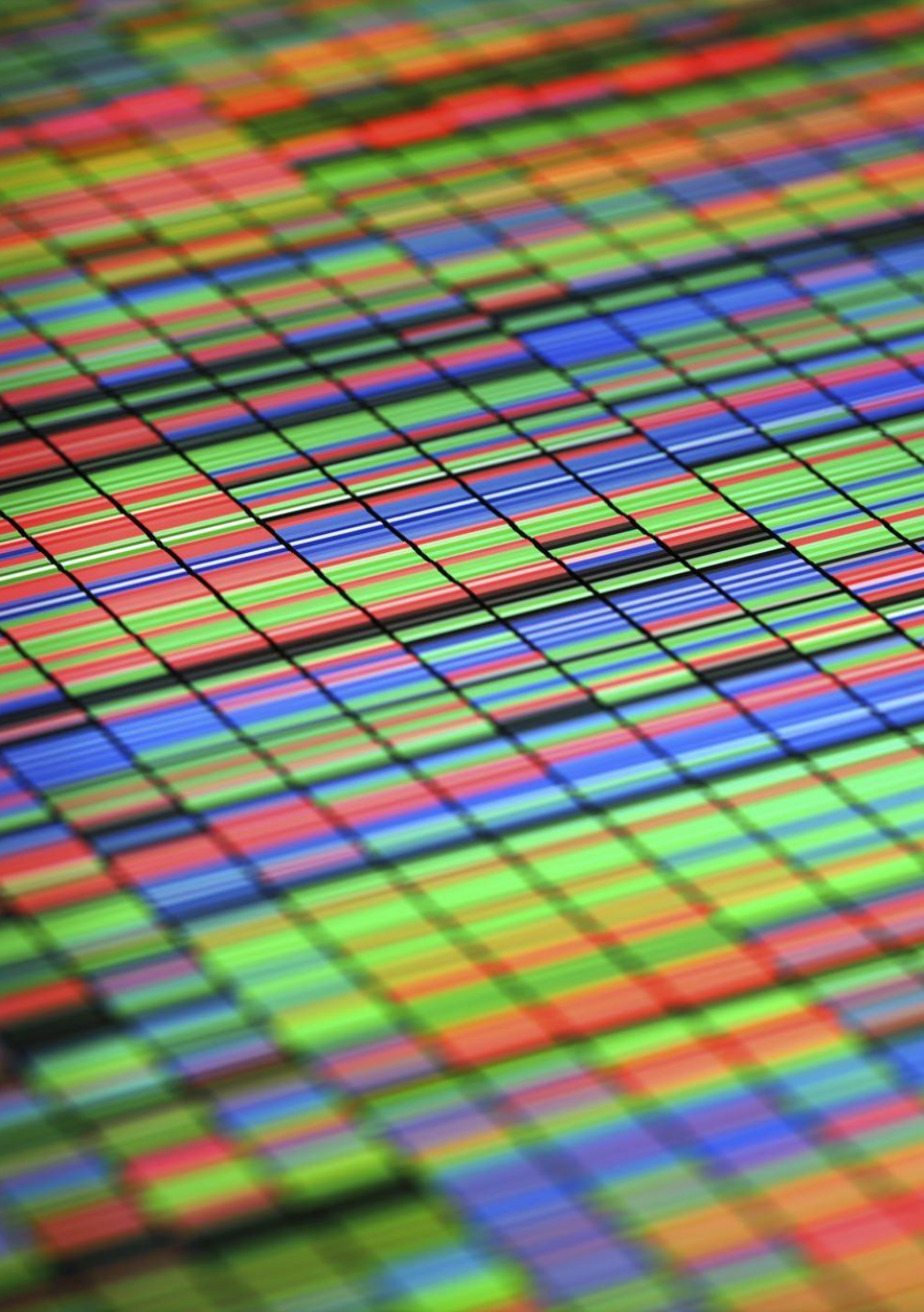
Key differences between Data and Information

Data

- Consists of unprocessed raw facts
 - Data is not meaningful on its own
 - Normally vast in volume on its own
- 

Information

- Processed form of data
- Information is meaningful as it is compiled for a purpose
- Relatively short in terms of volume



Background Literature

- Analysis of large amounts of data
- Diversity and speed of data
- Visualization

Benefits

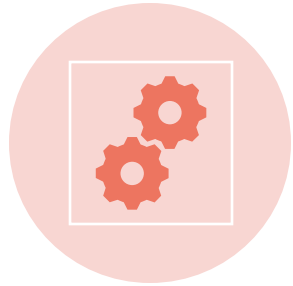
- Improvements of the marketing enterprise
- Better productivity
- Increase in employment rate



Information Systems



Challenges of Information Systems



System Integration



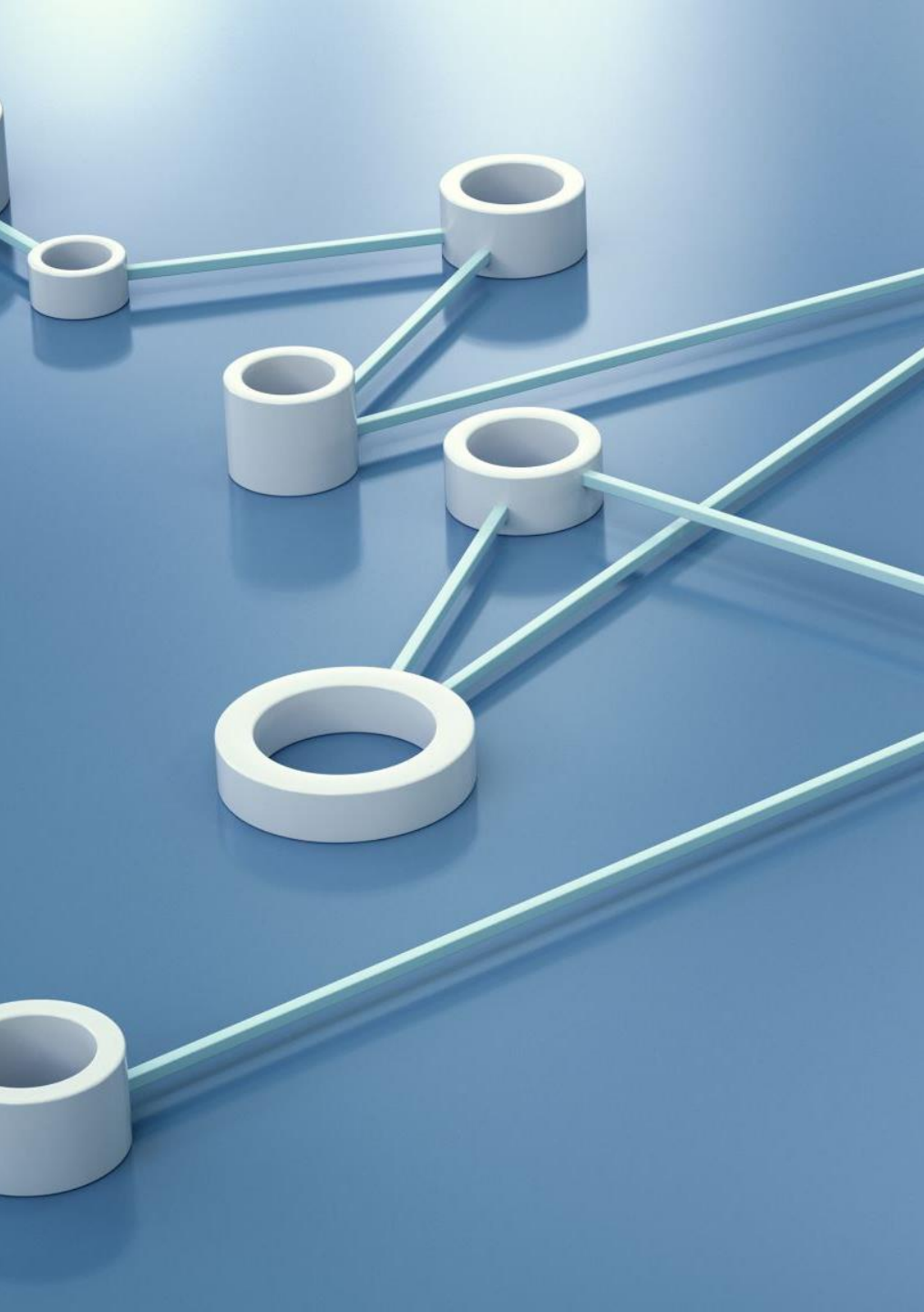
Quality of
Information



Managing Data



Security



WHAT IS INFORMATION SYSTEMS?

- Tools that help organizations manage and use data efficiently. They include technology, people, and processes that support tasks like decision-making. The goal is to assist operations and help achieve organizational goals.



Background Literature

- Documentation
- Survey
- Statistics of informational databases
- Census



Benefits

- Improved Efficiency
- Enhanced Communication
- Better Education
- Faster decision-making
- Emphasis on medicine information



Different Types of Support Systems in Information Systems



Typology of Information Systems

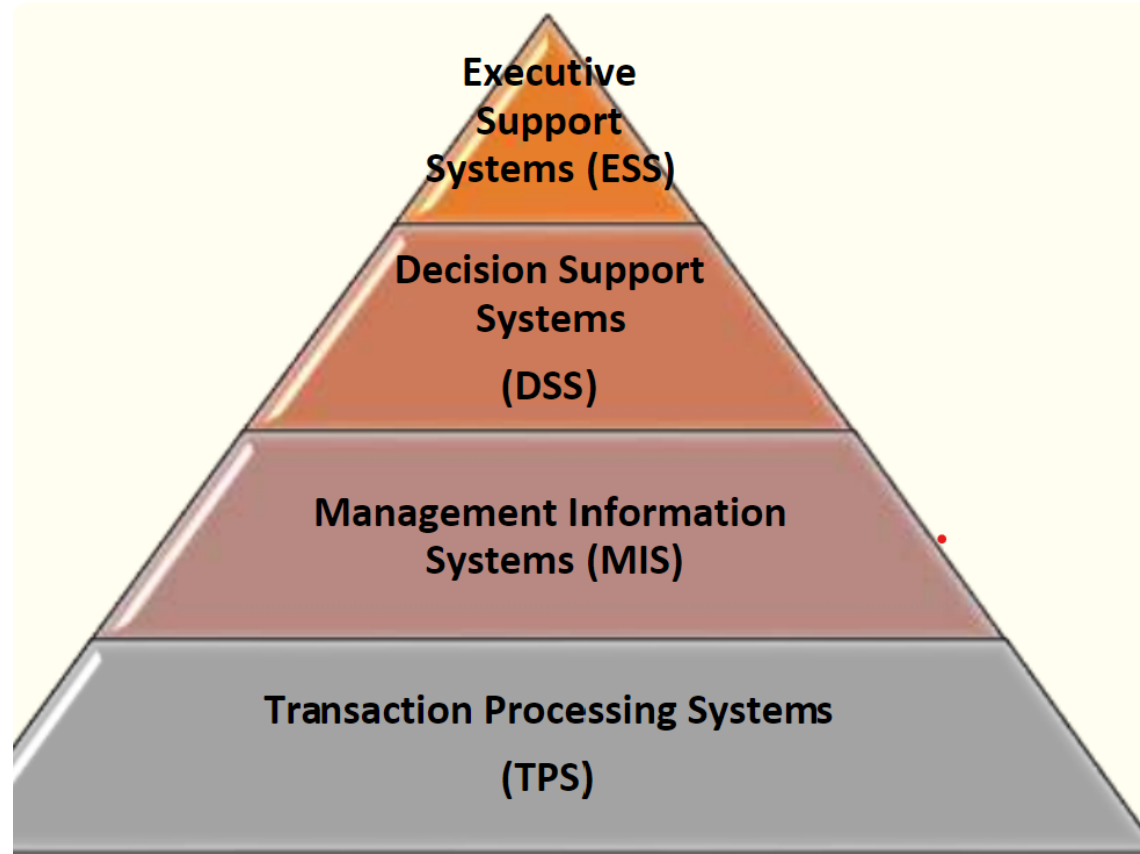


Figure 2. Information Systems Types according to Managerial Level

- Executives at different hierarchy levels have very different information requirements, and different types of information systems have evolved to meet their needs



Typology of Information Systems

- Transaction Processing System (TPS)
 - A system that keeps track of the organization for necessary activities and operations, such as sales and material flow in a factory.



Typology of Information Systems

- Management Information Systems (MIS)
 - Its role is to summarize and report on essential business operations using data provided by transaction processing systems
- 

Typology of Information Systems

- Decision Support Systems (DSS)
 - The system can answer questions such as: Considering customer's delivery schedule and the freight rate offered, which vessel should be assigned, and what fill rate to maximize profits? What is the optimum speed at which a vessel can maximize profit while meeting its delivery schedule?

Typology of Information Systems

- Executive Support Systems (ESS)
 - Designed to integrate data from the external environment, such as new taxes or competitor data, and integrate aggregate data from MIS and DSS. ESSs filter, synthesize and track critical data.

Benefits

- Increase in profits
- Improving customer service
- Supporting decision making and control in organizations



her areas work. Meer (2013) decisions and work more ussin (2020) explain, it can re, where having the right 009) and Kising et al. (2004)

- Big data and modern information systems are changing how businesses and other areas work. Meer (2013) and Kubina & Koman (2016) show that big data helps companies make better decisions and work more efficiently. But if a company uses old technology, as Lazor (n.d.) and Shker & Hussin (2020) explain, it can slow things down and cost more money. This is especially important in healthcare, where having the right data is crucial for solving problems like a shortage of doctors. Lehmann et al. (2008) and Kirigia et al. (2006) show that good data helps in figuring out how to distribute medical workers effectively, and Gupta et al. (2003) stress the need for current information to handle these issues.
- Manyika et al. (2011) add that big data also fuels innovation and competition, helping businesses stay ahead. Zemmouchi-Ghomari (2021), Watson (2007), and Petter et al. (2013) discuss how information systems help manage and use this data. This is especially crucial during emergencies like the COVID-19 pandemic, as O'Leary (2020) points out, because effective information systems can greatly improve how well organizations respond to urgent situations. In short, using modern data and information systems is essential for making better decisions, staying competitive, and dealing with global challenges effectively.
- By updating technology and using big data, organizations can respond more effectively to challenges and make better, data-driven decisions.
- In conclusion, using big data and modern information systems is very important for making businesses and other areas work better. Big data helps companies make smarter choices and stay competitive, while modern systems manage and use this data efficiently. Old technology can slow things down and cost more, so it's important to keep systems updated. In healthcare, good data is crucial for solving problems like not having enough doctors and handling emergencies. Overall, using these technologies helps improve decisions, tackle global issues, and succeed in the long run.

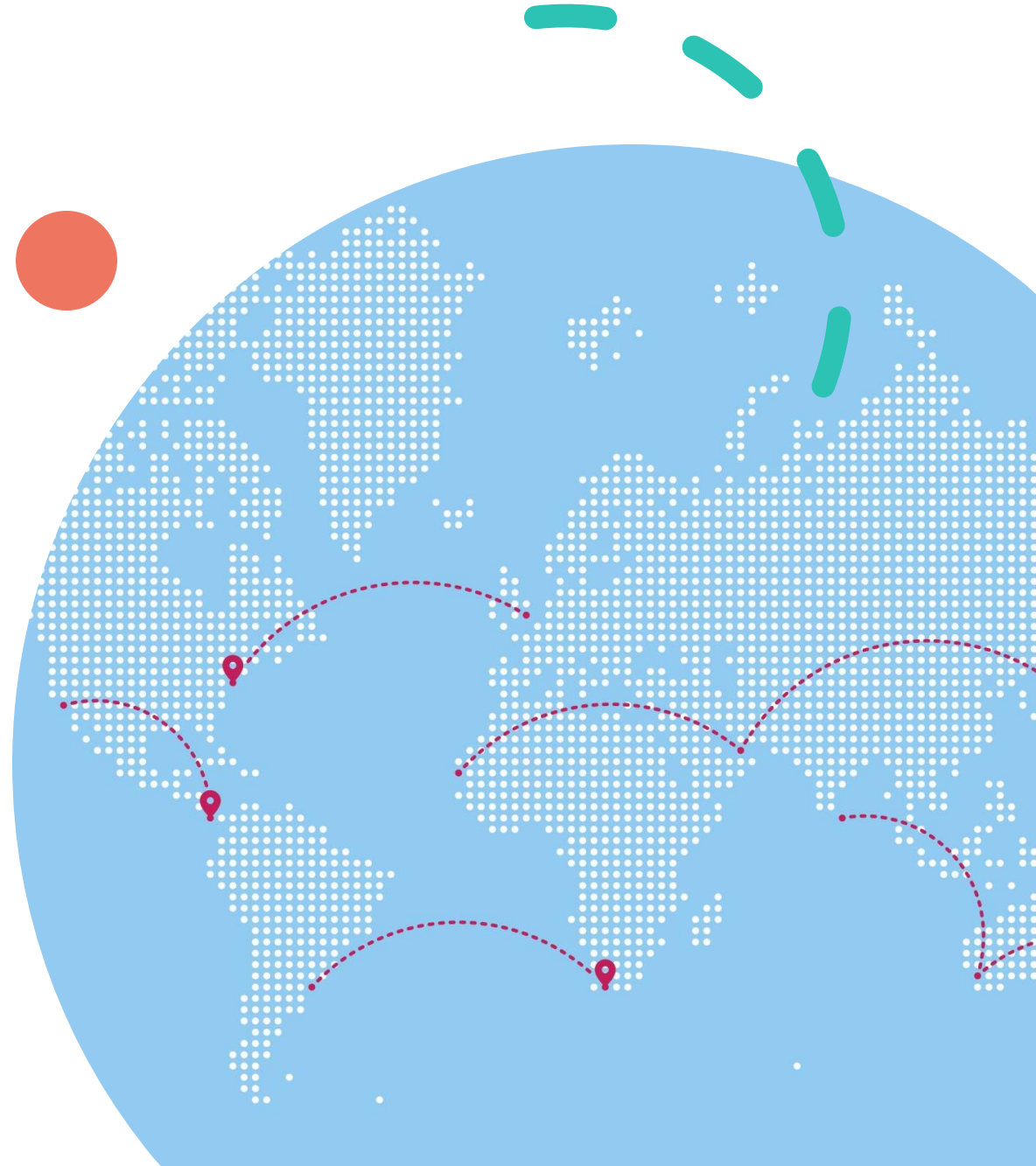
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