

The Parcel Sorting Machine (PSM)

Royal Mail

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Background of Royal Mail:

Postal service introduced

Letters were carried from post to post by carriers on foot or horseback.

1635

1657

Postage act

The receiver had to pay for the letter or refuse delivery. Fixed rates were based on distance travelled.

Coach delivery

John Palmer wanted mail delivery to be faster and more reliable so he made a plan for mail to be delivered the same way as parcels. The coaches were guarded by armed men to ensure safety.

1734

1840

Stamp system introduced

The penny stamp and two penny stamp were introduced based on a stamp weighing system. Under this system, the sender had to pre-pay for their letter so the receiver wouldn't have to refuse it.

Hierarchy

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graph LR; H[Hierarchy] --> KW[Keith Williams. Interim Executive Chair]; H --> SS[Stuart Simpson. Interim Chief Executive Officer]; KW --> ST[Simon Thompson. Chief Executive Officer]; KW --> RG[Rita Griffin. Non-Executive Director]; SS --> MJ[Mick Jeavons. Group Chief Financial Officer]; SS --> MS[Martin Seidenberg. Director];
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Keith Williams. Interim
Executive Chair

Simon Thompson. Chief
Executive Officer

Rita Griffin. Non-Executive
Director

Stuart Simpson. Interim
Chief Executive Officer

Mick Jeavons. Group Chief
Financial Officer

Martin Seidenberg. Director

Compare and contrast

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Before

They allow for easy categorization in preparation for items to be despatched later. Boxes are sorted by postcode with identification tabs on the top-left-hand corner of the box to make entry and retrieval of the item easier.

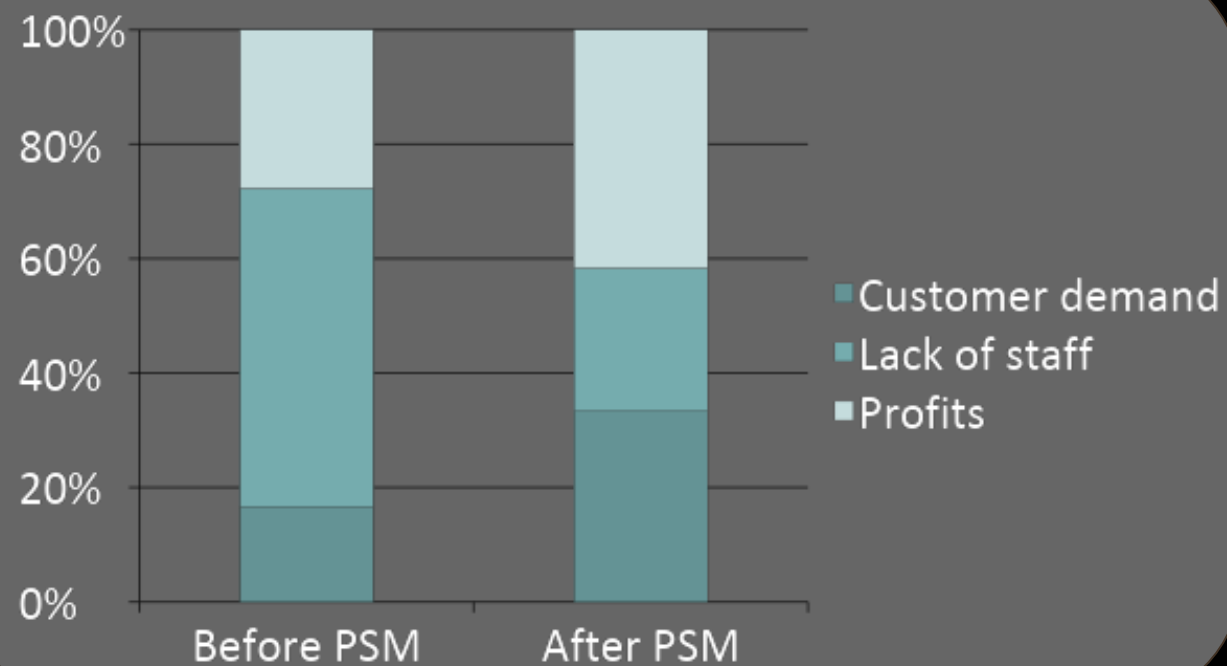
After

It is a much faster and more efficient method for processing mail. It also helps to keep costs down and keep up with postal demands.

Financial Impact – Compare and Contrast

- Royal mail lost profit
- Higher customer demand
- Lack of staff

Royal Mail



The challenge(s) before the introduction of modern technology

Royal Mail

- mail was sorted by hand using what is called a “pigeon-hole message box” method
- Addresses were read and manually slotted into specific compartments
- The parcel box have to be weight before sorting for health and safety

The challenge(s) after the introduction of modern technology

The Royal Mail logo, featuring the words "Royal Mail" in a stylized, yellow, serif font on a red rectangular background. The background of the entire slide is a blurred image of a mail sorting facility with cardboard boxes and mechanical components.

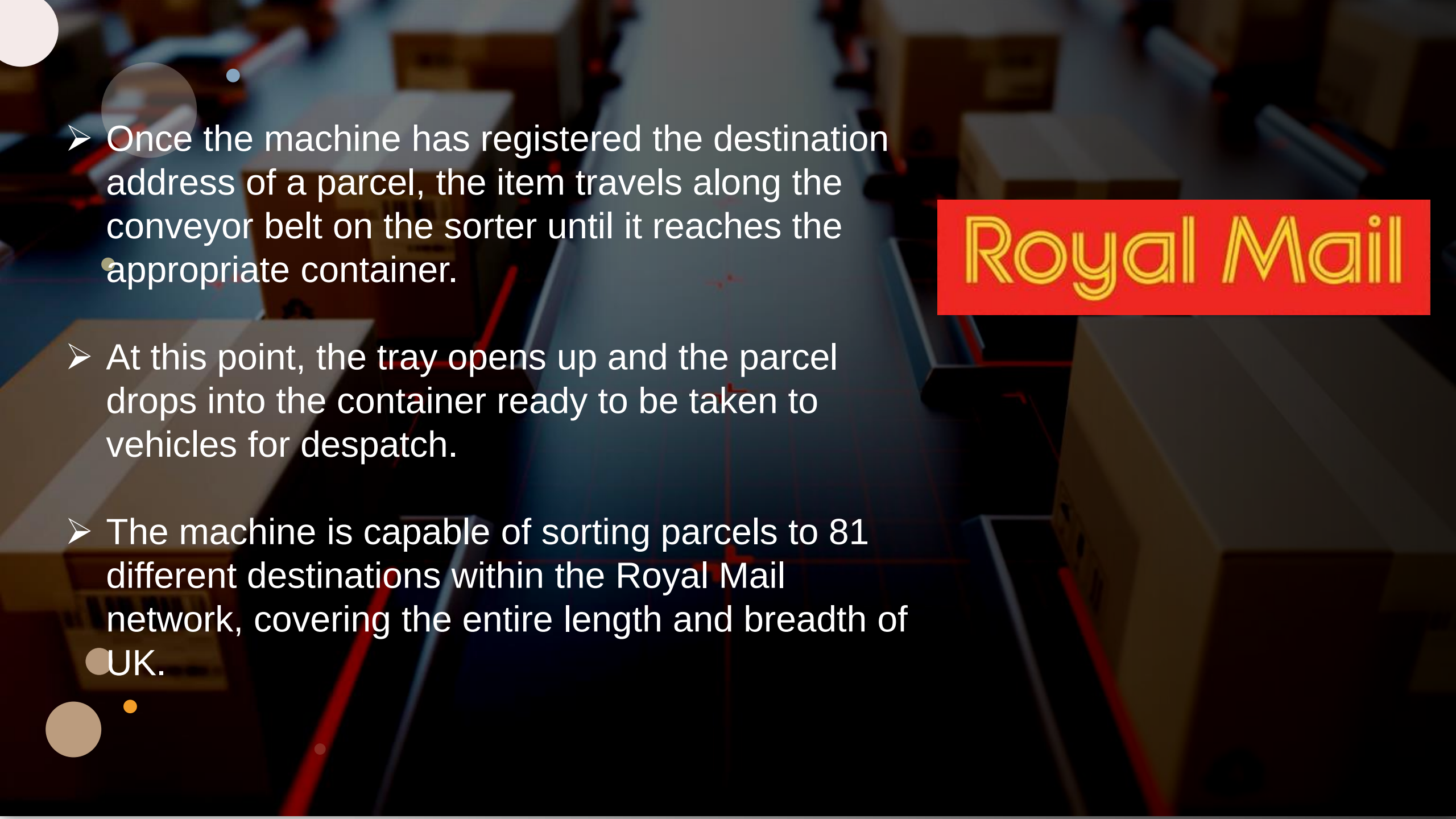
Royal Mail

- Faster processing of mail up to 180.000 envelopes per day
- Addresses were automatically read by the computer and automatically slotted into specific compartments
- The heavy parcel box manipulated by robots
- Dimension and weight are automatically scanning and measured from a CD size to a box 35x35x35 cm and sent to specific container

PSM

Royal Mail

- Parcel sorting machine is an intelligent conveyer of belts and scanner technologies which permit to sort and dispatch parcels in Royal Mail network.
- Across the UK Royal Mail use 200 trays to process up to 10.000 mails per hour.

- 
- Once the machine has registered the destination address of a parcel, the item travels along the conveyor belt on the sorter until it reaches the appropriate container.
 - At this point, the tray opens up and the parcel drops into the container ready to be taken to vehicles for despatch.
 - The machine is capable of sorting parcels to 81 different destinations within the Royal Mail network, covering the entire length and breadth of UK.

Royal Mail

Additional benefits

Royal Mail

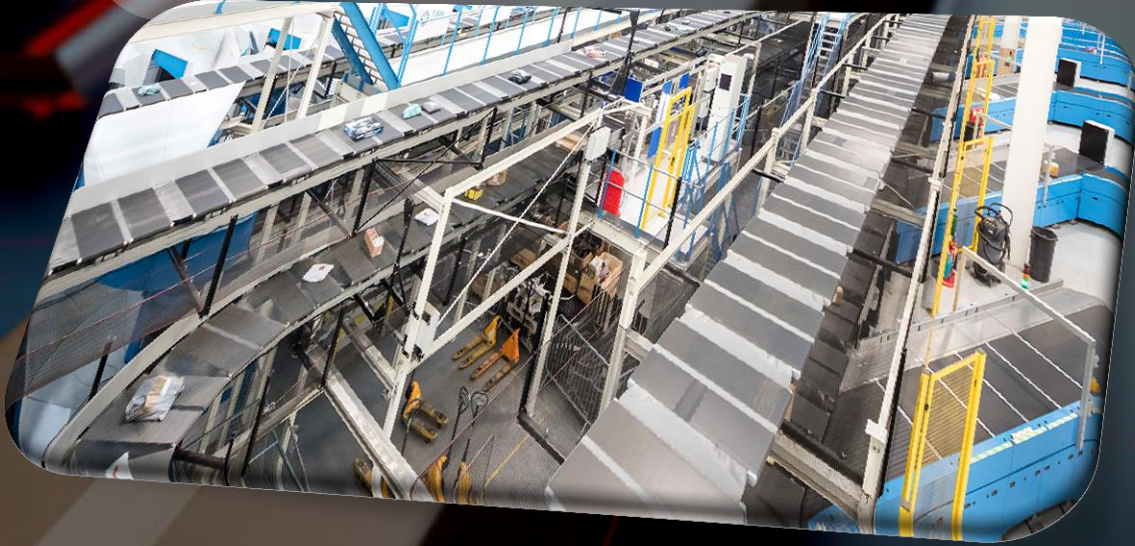
- With its bar scanning technology, the machine is also able to process tracked items much more quickly.
- The roll-out of this new technology is transforming the way Royal Mail processes parcels which are continuing to grow in volumes.
- The technology will help us to speed up the passage of parcels to local mail centers.

Conclusion

Royal Mail

Royal Mail worked closely with unions throughout this program, and colleagues who work on the machine have said they prefer the quality of work compared to manual sorting.

INSIGHTS TO THE MODERN TECHNOLOGY INTRODUCED



Royal Mail

Reasons to use the technology

- Use of automation for company practices (Royal Mail Group, 2021)
- Application of parcel sorting system to sort
 - 180.000 parcels a day

- Time and cost saving
- Improves productivity of the company
- Faster delivery leads to customer satisfaction (Boysen *et al.* 2019)

Royal Mail





Royal Mail

The usefulness of the technology at the present

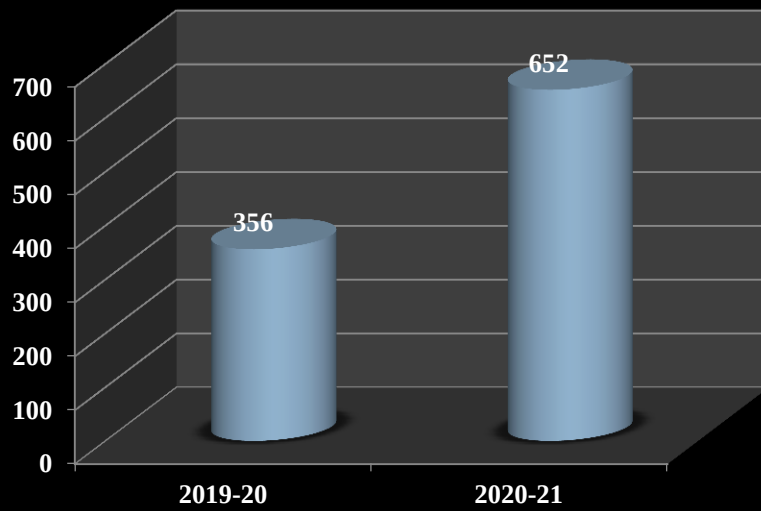
- Automated sortation conveyors are now used by many organizations
 - Basic components of distribution process
- (Fedtke and Boysen, 2017)



Royal Mail

The main aim of the company can be fulfilled
Beneficial for logistic services as well

Sorted parcels (in millions)



Royal Mail

Royal Mail as a technology-driven *company*

- Automated operational system
- Increase in success rate by 83% (Royal Mail Group, 2021)
- Agreement with Communication Worker Union (CWU) for future development

References:

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Royal Mail Group, 2021. *Introducing our Midlands Parcel Hub*. [online]. Available at: <https://www.royalmailgroup.com/en/insights-innovation/transformation/introducing-our-midlands-parcel-hub/> [Accessed on: 15 November 2021]

The Royal Mail logo is displayed in a stylized, yellow, outlined font on a red rectangular background. The background of the entire slide is a blurred image of a parcel sorting facility with cardboard boxes moving along a conveyor system.