

### Cadbury Schweppes Introduction

The first Cadbury shop opened in 1824. The owner of the shop was John Cadbury. His brand that today provides the world with many of its favourite brands of chocolate. A small family business developed into an international company combining the most complicated technology with the highest standards of quality, technical skills and originality. A one-man business, opened in 1824 by a young man, John Cadbury, in Bull Street Birmingham, was to be the organization of Cadbury Limited, now one of the world's largest chocolate producers. By 1831 the business had changed from a grocery shop and John Cadbury had become a producer of drinking chocolate and cocoa, the start of the Cadbury manufacturing business as it is known today.

The leader in the UK market, Cadbury Limited is the confectionery division of Cadbury Schweppes plc, a main force in the sweet and soft drinks international market. Quality has been the focus of the Cadbury business from the very beginning.

### Main Aims of Cadbury Schweppes

Our  
♥ Core Purpose  
is:



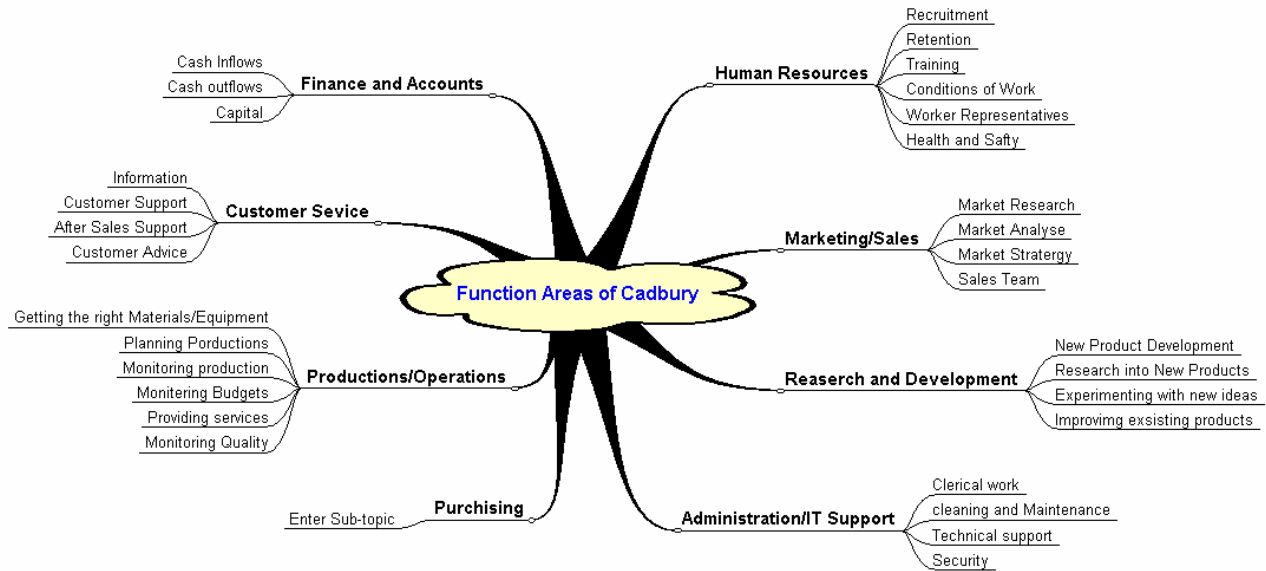
Cadbury is owned by share holders. The share owners are happy with this because they earn extra money

One of Cadburys main aim is to make quality chocolate for customers. They make brands that people love. "Working together to create brands people love"

Another one of Cadburys main aims is to make a profit. To this they have to produce high quality chocolate. They can't produce too much waste products.

Their last aim is to minimize waste and minimize pollution. To do this they have produced there own village. Bourneville is a place is a place for their workers to stay. This town was made so the workers did not have to travel far. This means that they don't produce much pollution when they travel. To minimize waste they melt down used materials and re use them.

### ICT in a Business



### Human resources

Human resources make sure that the business has the best staff for the job and that they are able to work effectively in a safe environment. Human resources deal with the training, employment, health and safety and discuss with unions/workers. Training is when the workers learn how to do the job. Employment is when the have to hire the right people for the job.

### Finance

Finance keeps a record of all money coming in and going out of the business. They have responsibility for securing finances for future increase and paying staff and suppliers. They keep a detailed record of the money coming in and going out. Finances deal with wages and loans. Finance also has to pay for the materials and equipment that have been used.

### Administration and ICT support

Administration and ICT support ensure the smooth running of the business on a day to day basis. Some of the responsibilities they have are office duties, cleaning, computer and software support, security and health and safety. Clerical work is a main job. Some clerical work are sorting out mail and filling. Technical support is another job. These workers mostly deal with technical problems.

### Operations

Operations have the task of producing the goods or service in the most efficient way. This is done by making best use of the business's staff, machinery, building and raw materials. They also make sure that the production plans are met on time and products

of the right quality are produced. People that work in productions have many jobs. Some examples are getting the right materials, planning, and monitoring budgets

### Marketing and sales

Marketing boost the level of chocolate being sold by carrying out research. They carry out surveys. They also organize the advertising and the production. Sales function deals with all aspects of selling to customers. Marketing sales find out what audience there chocolate bar is for. They also research on which companies would buy there product and how people would know about there product. Sales teams are located in different places. Some can be found Local, Regional, national and international.

### Customer service

There are four major things about customer service. The first thing is that Customer service provides information. The second thing is that they give customer support. The third thing is that they give customers after sales support. The last thing is that they give customers advice.

### Research and development

Research and development design new products. They update the old ones. They design the wrapping and test new products. They do this to test out new designs and make more money. They find out how much people would pay for a chocolate bar. The main job is that they experiment with new ideas.

### Use of ICT

ICT will be used in each of these functional areas and it should assist the business in achieving its aims and objectives.

Name of Department or Area	What ICT is used
<b><u>Manufacturing</u></b>	<b><u>Software</u></b> <u>Computer aided design (CAD)</u> <ul style="list-style-type: none"> <li>- Cinema 4D</li> <li>- Point of sale material</li> <li>- Packaging</li> </ul> <u>Adobe Photoshop</u> <ul style="list-style-type: none"> <li>-Image manipulation</li> <li>-Change colour</li> <li>-Add images</li> <li>-Airbrush</li> </ul>
Aims and Objectives <ol style="list-style-type: none"> <li>1. Make a Profit</li> <li>2. Make Quality Product</li> <li>3. Reduce waste and pollution to help the environment</li> </ol> <p>Technology helps prevent mistakes, and allows them to get all the information together more efficiently. The technology helps communication within the department to reduce the chance of tasks being repeated. More hygienic, produces less waste, product is always of a high quality. Easier to test the quality of the product. Less people are needed to do these jobs.</p>	<b><u>Hardware</u></b> <u>Computer-aided-manufacture (CAM):</u> <ul style="list-style-type: none"> <li>-Recipe</li> <li>-Flow wrap</li> <li>-Packing</li> </ul> <u>Control</u> <ul style="list-style-type: none"> <li>-Chocolate depositor</li> <li>-Caramel Depositor</li> <li>-Metal/weight detector</li> </ul> <u>Sensors</u> <ul style="list-style-type: none"> <li>-Metal Detector</li> <li>-Weight sensor</li> </ul>
	<b><u>What do they use it for?</u></b> They use it for designing, packaging and the production. CAM helps put the chocolate together and makes it taste the same.
<b><u>How does ICT help?</u></b>	Using ICT Cadbury can produce more chocolate. Example the quicker the machines the more chocolate made. If people made the chocolate by hand not much would be produced. CAM helps them produce a lot of chocolate which taste the same and use the same amount of ingredients. CAD helps the designers produce attractive wrappers.
<b><u>What sort of input devices, output devices, processors, cables, ports and sockets are used.</u></b>	<u>Input</u> Mouse, keyboard, Temperature Sensor, Motion Sensor, Metal Detection Sensors, Pressure Sensors, Weight Sensors, Flow Rate Sensors, Card Reader <u>Output</u> Monitor, Siren, Actuator Valves, Printers <u>Processors</u> INTEL CPU's, Microprocessors, <u>Ports and Cables</u> Parallel, USB, Ethernet, Ps2, Cat5, fiber optic cables and converters. <u>Storage devices</u> PC Hard Drives, DVD's and CD's.

Name of Department or Area	What ICT is used
<b><u>Administration</u></b>	<b><u>Software</u></b> <u>Microsoft Word</u> <ul style="list-style-type: none"> <li>• Letters,</li> <li>• Memos</li> </ul> <u>Outlook</u> <ul style="list-style-type: none"> <li>• Diary</li> <li>• Contacts</li> <li>• Email</li> <li>• Communication Via e-mail</li> <li>• Calendar</li> <li>• Changed from Lotus Notes</li> </ul> <u>PowerPoint</u> <ul style="list-style-type: none"> <li>• Presentations</li> </ul>
<p>Aims and Objectives</p> <ol style="list-style-type: none"> <li>4. Make a Profit</li> <li>5. Make Quality Product</li> <li>6. Reduce waste and pollution to help the environment</li> </ol> <p>Technology helps with the presentations of the chocolates. It also makes things more organised. Makes the business more efficient. There are less people working so the offices aren't cramped. They employ less people so it helps with the profit. Not much people to pay.</p>	<b><u>Hardware</u></b> <u>DESKTOP COMPUTERS</u> <ul style="list-style-type: none"> <li>• Compaq, Intel, Pentium 4, 2.53 GHz</li> <li>• Windows XP</li> <li>• 37GB of HD memory</li> <li>• 324 GB of memory via server</li> <li>• 15" Flat screen monitor</li> <li>• Networked printers</li> <li>• Fax machine</li> <li>• Voice over Internet protocol (VoIP) system</li> <li>• Fibre optic cabling used.</li> </ul>
	<b><u>What do they use it for?</u></b> Administration use Microsoft Word, Outlook, and PowerPoint to email, write letters, memos and as a diary. They also use it for presentations. They use good computers with a lot of memory.
<b><u>How does ICT help?</u></b>	The computers make them more organised so they don't have to do any filling. They have their own diary which also keeps them organised.
<b><u>What sort of input devices, output devices, processors, cables, ports and sockets are used.</u></b>	<u>Input</u> Microphone, mouse and keyboard. <u>Output</u> Photocopiers, loudspeaker and projector. <u>Processors</u> INTEL CPU's, Microprocessors, Mainframe CPU <u>Ports and Cables</u> Parallel, USB, Ethernet, Ps2, Cat5, fiber optic cables and converters. <u>Storage devices</u> PC Hard Drives, Mainframe Winchester Disks, Tape Drives, DVD's and CD's.

Name of Department or Area	What ICT is used
<b><u>Retail</u></b>	<b><u>Software</u></b> RMS <ul style="list-style-type: none"> <li>Retail management system</li> </ul>
Aims and Objectives <ol style="list-style-type: none"> <li>7. Make a Profit</li> <li>8. Make Quality Product</li> <li>9. Reduce waste and pollution to help the environment</li> </ol> <p>Technology helps the company make a profit because they sell products. They can scan product very quickly which means less people at the tills. This helps with the profit.</p>	<b><u>Hardware</u></b> EOS till systems <ul style="list-style-type: none"> <li>Analyse sales for the day</li> <li>Stock control</li> </ul>
	<b><u>What do they use it for?</u></b> They use it for scanning items to sell. They also use it to analyse sales for the day. Stock control gets a message if an item is sold so they bring extra stock to replace.
<b><u>How does ICT help?</u></b>	It is much quicker because all they have to do is scan the product and the item price appears on the screen.
<b><u>What sort of input devices, output devices, processors, cables, ports and sockets are used.</u></b>	<u>Input</u> Mouse, keyboard, Microphone, Barcode Scanner, <u>Output</u> Monitor <u>Processors</u> INTEL CPU's, Microprocessors, Mainframe CPU <u>Ports and Cables</u> Parallel, USB, Ethernet, Ps2, Cat5, fiber optic cables and converters. <u>Storage devices</u> PC Hard Drives

Name of Department or Area	What ICT is used
<b><u>Booking Office</u></b>	<b><u>Software</u></b> Wincas <ul style="list-style-type: none"> <li>-Timed booking system</li> <li>-80 visitors per 10 mins</li> <li>-Database visitors information</li> </ul>
Aims and Objectives <ul style="list-style-type: none"> <li>10. Make a Profit</li> <li>11. Make Quality Product</li> <li>12. Reduce waste and pollution to help the environment</li> </ul> <p>Helps them to provide a quality service. It also keeps people happy which means more profit. It reduces waste as well because it only allows certain amount of people in. The more people the more litter. If there wasn't a booking office there would be a lot of unhappy people because they would not be allowed in.</p>	<b><u>Hardware</u></b> <b><u>DESKTOP COMPUTERS</u></b> <ul style="list-style-type: none"> <li>• Compaq, Intel, Pentium 4, 2.53 GHz</li> <li>• Windows XP</li> <li>• 37GB of HD memory</li> <li>• 324 GB of memory via server</li> <li>• 15" Flat screen monitor</li> <li>• Networked printers</li> <li>• Fax machine</li> <li>• Voice over Internet protocol (VoIP) system</li> <li>• Fibre optic cabling used.</li> </ul>
	<b><u>What do they use it for?</u></b> They use Wincas to book people into Cadbury. It's a timed booking machine.
How does ICT help?	It is more organised and keeps things less busy. The computer organises the times. There is a certain amount of people the computer lets in.
<b><u>What sort of input devices, output devices, processors, cables, ports and sockets are used.</u></b>	<b><u>Input</u></b> Microphone, mouse and keyboard. <b><u>Output</u></b> Loudspeaker, <b><u>Processors</u></b> INTEL CPU's, Microprocessors, Mainframe CPU <b><u>Ports and Cables</u></b> Parallel, USB, Ethernet, Ps2, Cat5, fiber optic cables and converters. <b><u>Storage devices</u></b> PC Hard Drives, Mainframe Winchester Disks, Tape Drives, DVD's and CD's.

Name of Department or Area	What ICT is used
<b><u>Distribution</u></b>	<b><u>Software</u></b> <b><u>Autostore</u></b> <ul style="list-style-type: none"> <li>• Monitors stock</li> <li>• links with robots</li> </ul>
Aims and Objectives 13. Make a Profit 14. Make Quality Product 15. Reduce waste and pollution to help the environment  They use a radio frequency identification to count how many boxes leave the warehouse. This means that they don't have to hire all of people. This helps because they don't have to pay that many people. This helps with the profit.	<b><u>Hardware</u></b> <ul style="list-style-type: none"> <li>• Mobility of printers in trolleys</li> <li>• Printing pallet labels</li> </ul> wireless connection to printers <b><u>RFID</u></b> <ul style="list-style-type: none"> <li>• Radio Frequency Identification</li> <li>• Pallets at distribution sites are labelled.</li> <li>• Tesco use same system.</li> <li>• Ease of movement of stock</li> <li>• Stock control</li> </ul>
	<b><u>What do they use it for?</u></b> They use it to check if the stock is full. They also use it to print out labels. They use it because it is easier.
<b><u>How does ICT help?</u></b>	ICT helps because it is quicker to design and print out labels. If ICT was not used you would have to count them all as they leave the ware house. There would be more workers. Which meant it would be slower
<b><u>What sort of input devices, output devices, processors, cables, ports and sockets are used.</u></b>	<b><u>Input</u></b> Mouse, RFID reader, keyboard, barcode scanner and card reader. <b><u>Output</u></b> Siren, RFID tags printer and monitor. <b><u>Processors</u></b> INTEL CPU's and Microprocessors, <b><u>Ports and Cables</u></b> Parallel, USB, PS2, fiber optic cables and converters. <b><u>Storage devices</u></b> PC Hard Drives, Mainframe Winchester Disks, Tape Drives, DVD's and CD's.



Name of Department or Area	What ICT is used
<b><u>Security</u></b>	<b><u>Software</u></b> No software
<p>Aims and Objectives</p> <ul style="list-style-type: none"> <li>16. Make a Profit</li> <li>17. Make Quality Product</li> <li>18. Reduce waste and pollution to help the environment</li> </ul> <p>Security helps with the profit because it protects the money. There are security cameras around which means they can catch people who litter. Because they use technology they employ less people. They can also stop people accessing the factory.</p>	<b><u>Hardware</u></b> Card access system for employees
	<b><u>What do they use it for?</u></b> So nobody hacks into there system and copy there product. Also nobody can access the place with machines that could harm you.
<b><u>How does ICT help?</u></b>	You don't need to use a key. All you have to do is swipe a card and the door open. So it is quicker. There is a chip inside the card and the security people can track who went through which door at what time.
What sort of cables, ports, and sockets are used?	<p><b><u>Input</u></b> Keyboard, Mouse, Motion Sensor, CCTV Cameras, Card Reader</p> <p><b><u>Output</u></b> Monitor,</p> <p><b><u>Ports and Cables</u></b> (Printer), USB, Ethernet (RJ45), PS2, Cat5, Fiber Optic Cables and converters.</p> <p><b><u>Storage devices</u></b> PC Hard Drives, Mainframe Winchester Disks, Tape Drives (magnetic Tape), DVD's</p>

Name of Department or Area	What ICT is used
<b><u>Finance</u></b>	<b><u>Software</u></b> <ul style="list-style-type: none"> <li>• Excel</li> <li>• SAP</li> <li>• Outlook</li> <li>• Windows XP</li> </ul>
<p>Aims and Objectives</p> <p>19. Make a Profit</p> <p>20. Make Quality Product</p> <p>21. Reduce waste and pollution to help the environment</p> <p>They have a programme called SAP. This helps them to integrate all system networks. This makes it easier to talk to people. Technology Can make it more efficient. This means less people and more profit.</p>	<b><u>Hardware</u></b> <b><u>DESKTOP COMPUTERS</u></b> <ul style="list-style-type: none"> <li>• Compaq, Intel, Pentium 4, 2.53 GHz</li> <li>• Windows XP</li> <li>• 37GB of HD memory</li> <li>• 324 GB of memory via server</li> <li>• 15” Flat screen monitor</li> <li>• Networked printers</li> <li>• Fax machine</li> <li>• All machine on a network</li> </ul>
	<b><u>What do they use it for?</u></b> Budgeting, Forecasting, Stock Control management, purchasing, orders.
<b><u>How does ICT help?</u></b>	<p>Far less time needed to do all the necessary tasks. Integrates all the different systems so that they can ‘talk’ to each other so the people in the finance office can get a picture of all the money that is going out and coming in.</p> <p>This helps to make sure that the maximum profit is made with the minimum expenditure. Allowing all the system to work together helps to stop any duplication of effort which wastes time and money. The SAP system was bought in especially to help to do this</p>
<b><u>What sort of input devices, output devices, processors, cables, ports and sockets are used.</u></b>	Fibre Optic Cables between sites, Ethernet, USB, Printer servers with Parallel printer ports

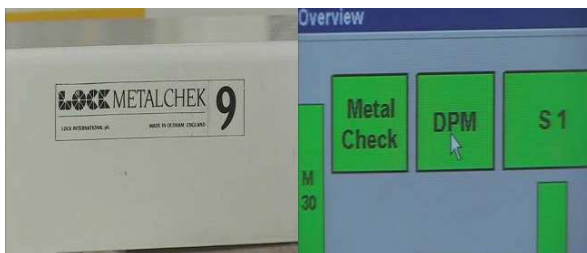
### **ICT and Process Control**

Cocoa Vats

These pictures tell us that there are many sensors in the cocoa vats. We know this because the computer shows the weight and temperature of the cocoa butter. You can also see the amount of butter in the vats by looking at the screen.



### Metal detector



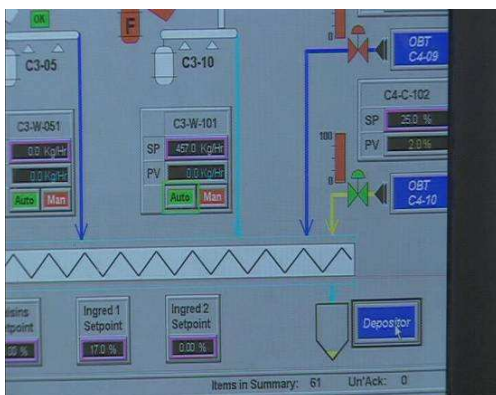
These pictures tell us that there is a sensor in the metal detector. The picture on the computer screen flashes red if there is any trace of metal. The metal detector detects metal in the chocolate.

### Tempering Machine

These pictures tell us that there is a sensor in the tempering machine. The computer tells us that there is a temperature sensor inside it. This sensor records the temperature of the chocolate. Using the computer you can change the temperature. It mixes the chocolate.



### Conveyor Belt



This is a conveyor belt. Using the computer you can change the speed. The faster the conveyor belt, the more chocolates made. However you might need to slow it down if there is a problem. You can also weigh the average amount of weight that has been on the conveyor belt.



### The Computer

The senior operator can control all the computers in Cadbury. He has all the machines sensors on his computer. He knows the temperature, weight, and amount of his product on his computers. He can look on his computer to see how full a container is and he can slow down or speed up the conveyor belts.

### Robot

This robot is programmed to lift chocolate and put them in there boxes. This robot knows where to pick chocolate up and how to put it in its box. It knows where it needs to pick the chocolate up from and know where to drop it.



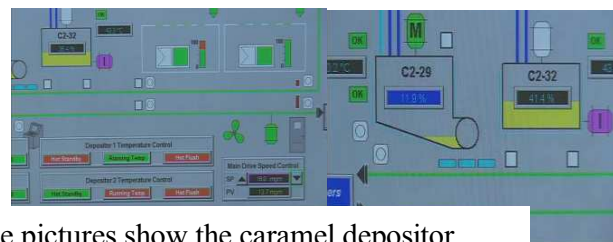
### Wrapper



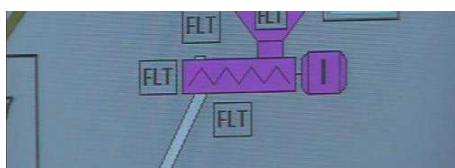
The wrapper is programmed to wrap things up. It shrink wraps the boxes. They are tightly packed up so they don't fall out the lorry. They are very heavy. There is a visual sensor UN the wrapper and a counter to count how many times it goes around.

### Depositor

These pictures show the depositor. The depositor deposits chocolate in the moulds. It has a temperature sensor. We know this because we could see the temperature on the screen.



These pictures show the caramel depositor. The depositor deposits caramel in the moulds. It has a temperature sensor. We know this because we could see the temperature on the screen.

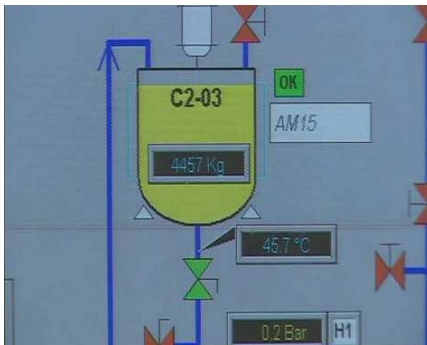


## Testing

These people test for bacteria or any harmful things in the chocolate. They check if there are enough ingredients using the computer.

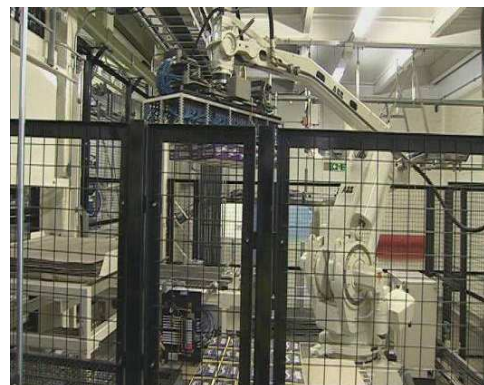


## Chocolate container



This picture is a chocolate container. I know that this has sensors inside it because we could see the weight and temperature on the computer screen.

This is a picture of a robot. This robot picks up the boxes and then stacks them up. This robot knows where the boxes are and know where to place them. This robot also knows how tall to stack them.

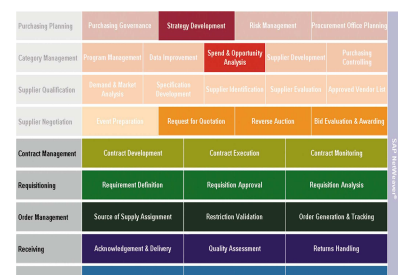


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Use	Details
LAN/Ethernet	<ul style="list-style-type: none"> <li>• 1,200 users throughout UK</li> <li>• Access central server, share information and facilities</li> <li>• Sites linked by MPLS (multi-protocol label switching) - fast access</li> <li>• Small sites linked by VPN (Virtual Private Network) – remote access</li> </ul>
Communications	<ul style="list-style-type: none"> <li>• Video conferencing</li> <li>• E-mail</li> <li>• Telephone conferencing</li> <li>• VOIP</li> </ul>
Backups	<ul style="list-style-type: none"> <li>• Daily</li> <li>• Some done automatically to another site</li> <li>• Some backups to tape and physically taken off site.</li> <li>• Business critical applications (SAP) set up in “cross site” clusters, so if one location was to go down, it would still run.</li> </ul>
Customer Ordering	<ul style="list-style-type: none"> <li>• Small orders inputted by hand</li> <li>• Large orders e.g. Tesco inputted via EDI (Electronic Data Interface)</li> </ul> <p>This will help eliminate human error</p>

### How does ICT help to bring all the parts of the system together?

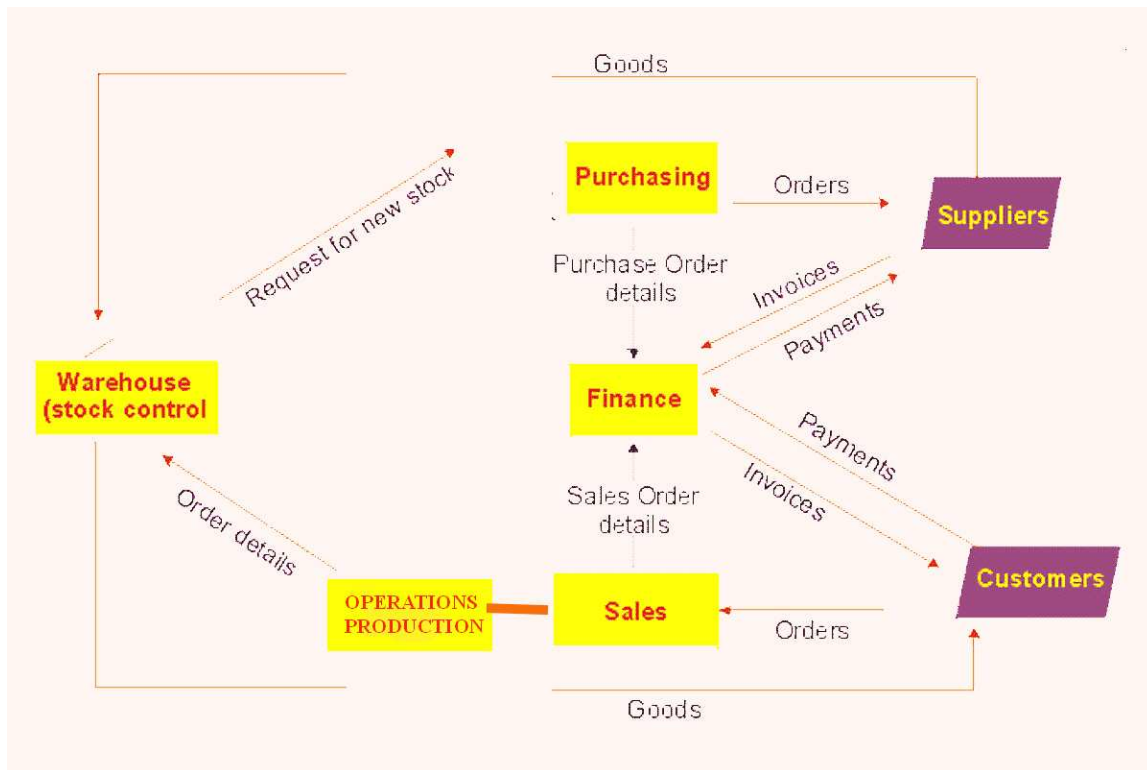
Cadbury Schweppes has used IT systems since the 1970s. It uses SAP as an ERP. This means it is enterprise resource planning system. SAP brings together all the systems in Cadbury. If SAP broke down the entire network would brake down as well because they are on one network. Sap is classed as a “Business Critical” program. Fortunately it is running from many different severs, so you would need all of the severs to shut down for it to stop working. SAP enables the different systems to integrate. SAP enables them to track all of the business process.



The network allows employees to log on anywhere in Cadbury to access your work. They can talk to anyone that is connected to the network. Because they have a network they can hold video conferences which saves them to travel. The bad point of this is that there might be a language barrier. This network allows a lot of people share one printer. They don't need one printer to every computer. There are daily back up systems, so if anything is lost it can be recovered.

The Flow of Information Between  
Departments in Cadburys





Tesco are Cadburys biggest customer. They send there orders to sales. Sales then send the order details to finance to check the prices. They also send there order details to operation production. They send there details to operation products because they make the product. Operation production then sends the order details to the warehouse. The warehouse then checks if they have enough materials. If they don't have enough stock they send a request for new stock. The request then goes to purchasing who then purchase the materials. The purchase order details go to finance. Purchasing then send the order to the suppliers, who provide the materials. The materials then go to the warehouse to be stored. Suppliers then send the invoices to finance then finance send the payments to the suppliers. Finance then send the invoices to Tesco and then Tesco send the payment to finance.

Evaluation/summary of how  
ICT helps  
Cadbury to meet their aims and  
objectives.



Gerber Foods Soft Drinks Limited





ICT in Cadbury has made it much easier in Cadbury. Before all the chocolate was made by hand however, now they make one bar nearly every second. In the past there would be a lot of people working in the factories. They would be cramped and it wouldn't have been a good place to work in.

Cadbury use a lot of technology to help run the business. Examples of some of the technology they use are computer systems and robots. They use this technology to help them make as much profit they can make. Cadbury chocolate is made by using programmed technology. This helps them cut down waste and make high quality goods. Once the company, Cadbury Schweppes, has made all the chocolates, it uses programmed robots to help stock up and then get it to their customers. An example of their customer is Tesco.

Workers also use the computer to check on their machines. Using sensors, they know how full a container is and they can also find out if there is a problem with the machines

Some employees use video conferencing to help reduce pollution by cutting travelling. They also use telephone conferencing to save money. One problem with this is that there might be a language barrier. This is an aim of Cadbury "to minimize waste and minimize pollution"

SAP is the main system used by Cadbury. This software allows them to integrate all the information from all the different departments. This means the company can have precise and the latest information available to help plan their future. By using networks they can improve communications and help put off wasted or duplicated efforts plus making sure that all parts of the organization work together.

Technology allows them to reduce cost by employing less people. The less people there is the more money they save because they don't have to pay as many workers/employee's. This also helps Cadbury meet one of their aims which is "to make a profit."

Cadburys final aim is to make quality chocolate for customers. They make brands that people love. "Working together to create brands people love" if they don't make brands people love. They would not make a profit. The accuracy of the automated machines makes the quality of the chocolate.