

Processes can be represented by flowcharts, but they have one drawback – a standard flowchart cannot indicate who is responsible for the activities illustrated unless explanatory text boxes are added or unless sole responsibility for the entire process falls to one department.

Instead, you can use a **cross functional flowchart** to portray the relationship between the steps in a process and the departments or functional areas that are responsible for those steps.

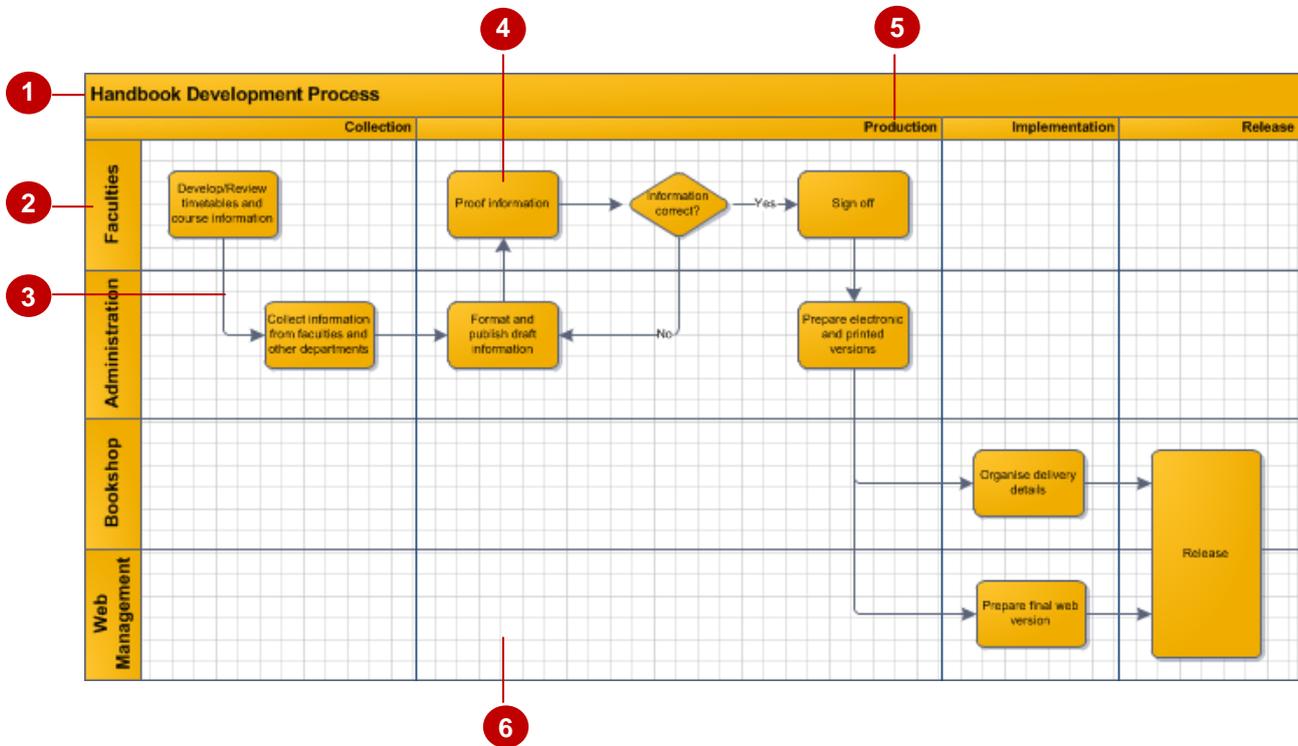
In this session you will:

- ✓ gain an understanding of cross functional flowcharts
- ✓ learn how to create a cross functional flowchart
- ✓ learn how to add swimlanes
- ✓ learn how to add swimlane labels
- ✓ learn how to add phases
- ✓ learn how to add shapes
- ✓ learn how to adjust swimlanes and phases
- ✓ learn how to format cross functional charts.

UNDERSTANDING CROSS FUNCTIONAL FLOWCHARTS

Cross functional flowcharts enable you to illustrate how a process flows between departments within an organisation. For example, you can depict how a new product is developed

within the company, and how the different departments are involved in this process. The fact that you have two dimensions to a cross functional flowchart differentiates it from other flowcharts.



1	The title bar appears at the top of the flowchart by default.
2	Each swimlane represents a different department or functional unit within an organisation which you can identify by modifying the label. The swimlanes can appear with a horizontal orientation (as they are above) where the steps tend to flow down and across through the flowchart or with a vertical orientation where the steps tend to move left and right in a horizontal manner. Note that a swimlane is a container that helps you to manage ordered sets of shapes. Like other containers in Visio, the swimlane and all shapes added to it are treated as a single unit – that is, if you move a swimlane, all shapes within it will also move.
3	The Connectors indicate the direction of the work flow.
4	Shapes from the Basic Flowchart Shapes stencil depict the steps of the process in a cross functional flowchart.
5	If you want to indicate phases in the process, you can use the Separator shape. This adds a heading in the phase bar and displays a separator through the swimlanes.
6	Built-in themes and styles can be applied to the flowchart or you can manually format the colour of each swimlane independently. In this case, we've applied the Module theme colours and Button theme effects to the flowchart but have retained the default style .

CREATING A CROSS FUNCTIONAL FLOWCHART

Visio includes a **Cross Functional Flowchart** template which lets you illustrate how a process (such as manufacturing a product) flows from start to finish and how the responsibility for the

various steps flows through different functional units (such as departments in a company). You can select a vertical or horizontal orientation for the chart.

Try This Yourself:

Before starting this exercise ensure no files are open in Visio...

- 1 Click on the **File** tab, then click on **Flowchart** under **Template Categories**, click on **Cross-Functional Flowchart** and then click on **[Create]**

A new default cross functional flowchart with two horizontal swimlanes, title bar and phase bar will be created....

- 2 Click on the **Cross-Functional Flowchart** tab to see the relevant commands

- 3 Click on **Orientation**  in the **Arrange** group and select **Vertical**

The swimlanes will appear vertically on the page and their labels will move to the top of each swimlane.

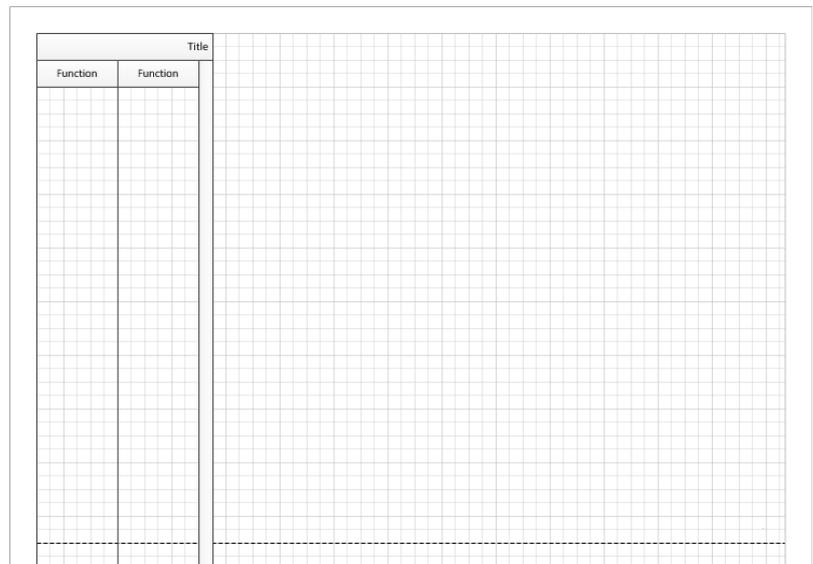
You can reverse the direction of the chart if desired...

- 4 Click on **Direction**  in the **Arrange** group and select **Right to Left**

- 5 Click on **Undo**  twice to reverse the **Direction** and **Orientation**



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For Your Reference...

To **create** a **cross functional flowchart**:

1. Select **File > New > Flowchart > Cross Functional Flowchart**

Handy to Know...

- You can choose whether to show or hide the title bar at the top of a cross functional flowchart. The title bar displays by default, but you can remove the tick from **Show Title Bar** in the **Design** group to hide the title bar.

ADDING SWIMLANES

Visio includes two swimlanes by default in a new cross functional flowchart. This is merely a starting point and you are able to quickly add swimlanes as you go. For instance, if three

departments are involved in a process, then you'll need to include three swimlanes in the chart to identify them.

Try This Yourself:

Same File

Continue using the previous file or open the file V516 Cross Function_1.vsd...

1 Hover near a corner of a swimlane (at either end)
A blue *Insert Swimlane Shape* icon will appear and the swimlane border will change to a heavy orange line, showing where a new swimlane would be inserted...

2 Click on the blue icon to insert a new swimlane
Swimlanes are shapes and you can insert them from the Shapes window...

3 Drag the **Swimlane** shape over the last band in the flowchart

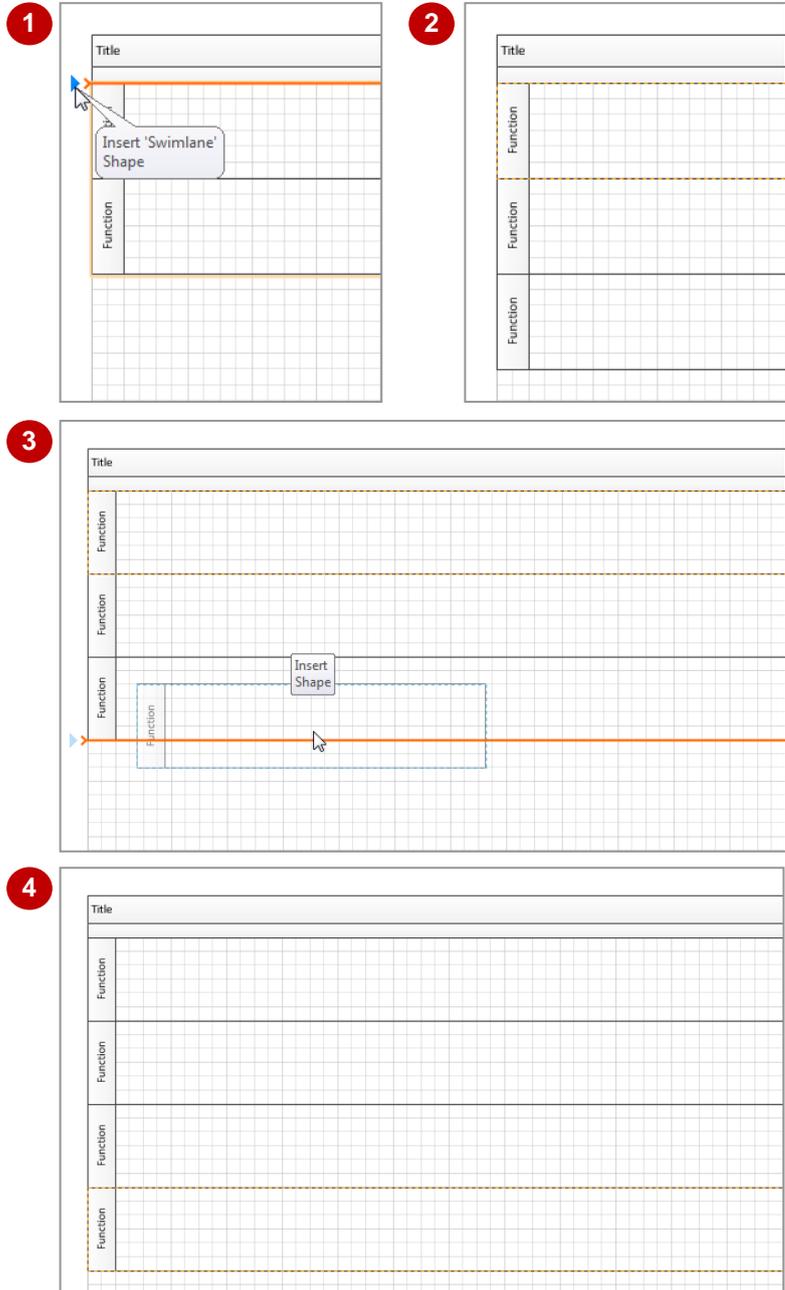
4 Release the mouse button to add another swimlane

5 Use either method to add another swimlane

It's very easy to delete unwanted swimlanes...

6 Click on the title of any swimlane to select it – a selected swimlane appears with a pale orange dashed border – and press **Del**

You should now have four swimlanes in the drawing



For Your Reference...

To **add** a **swimlane**:

1. Hover over the corner of a swimlane, then click on the blue icon to insert one below

To **delete** a **swimlane**:

1. Click on the swimlane label
2. Press **Del**

Handy to Know...

- You can move a swimlane by dragging its label to a new location.
- When you delete or move a swimlane in a cross functional flowchart, all shapes contained within that swimlane will also be deleted or moved.

ADDING SWIMLANE LABELS

Before adding shapes to a cross functional flowchart, you should identify which functional areas or departments each of the swimlanes represents. You can label each of the swimlanes

by replacing the default **Function** text. You can do this by simply clicking on the label to select it and typing the desired text. You will also add the chart title during this exercise.

Try This Yourself:

Same File

Continue using the previous file or open V516 Cross Function_2.vsd...

1 Double-click on the **Function** label in the top swimlane to select it

2 Type **Sales**
The text field will appear horizontally so you can read what you are typing...

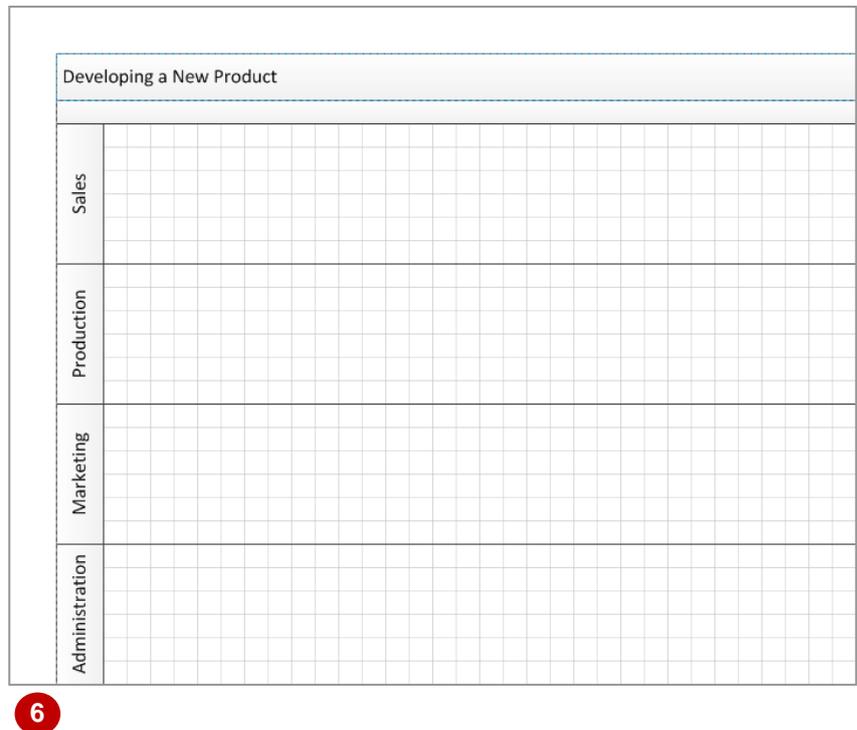
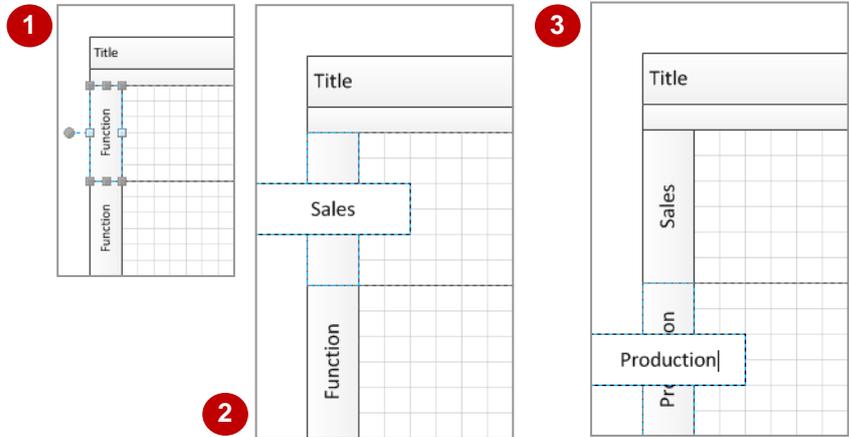
3 Double-click on the next label to select it, then type **Production**

4 Repeat step 3 to add the next two labels: **Marketing** and **Administration**, then press **Esc**

Let's add the chart title now...

5 Double-click on the **Title** label at the top of the chart to select it

6 Type **Developing a New Product**, then press **Esc**



For Your Reference...

To **add text** to a **chart title** or **swimlane**:

1. Double-click on the flowchart title or swimlane label
2. Type the text
3. Press **Esc**

Handy to Know...

- You can change the orientation of the swimlane label text from the default vertical to horizontal by clicking on **Rotate Lane Label** in the **Design** group. To widen the label column to fit horizontal text, click on one of the labels to select it and then drag the right resizing handle to the desired width.

ADDING PHASES

A **phase** is used to indicate during which stage of the process a particular step will occur. For instance, the development process of a product could be divided into the phases of Research,

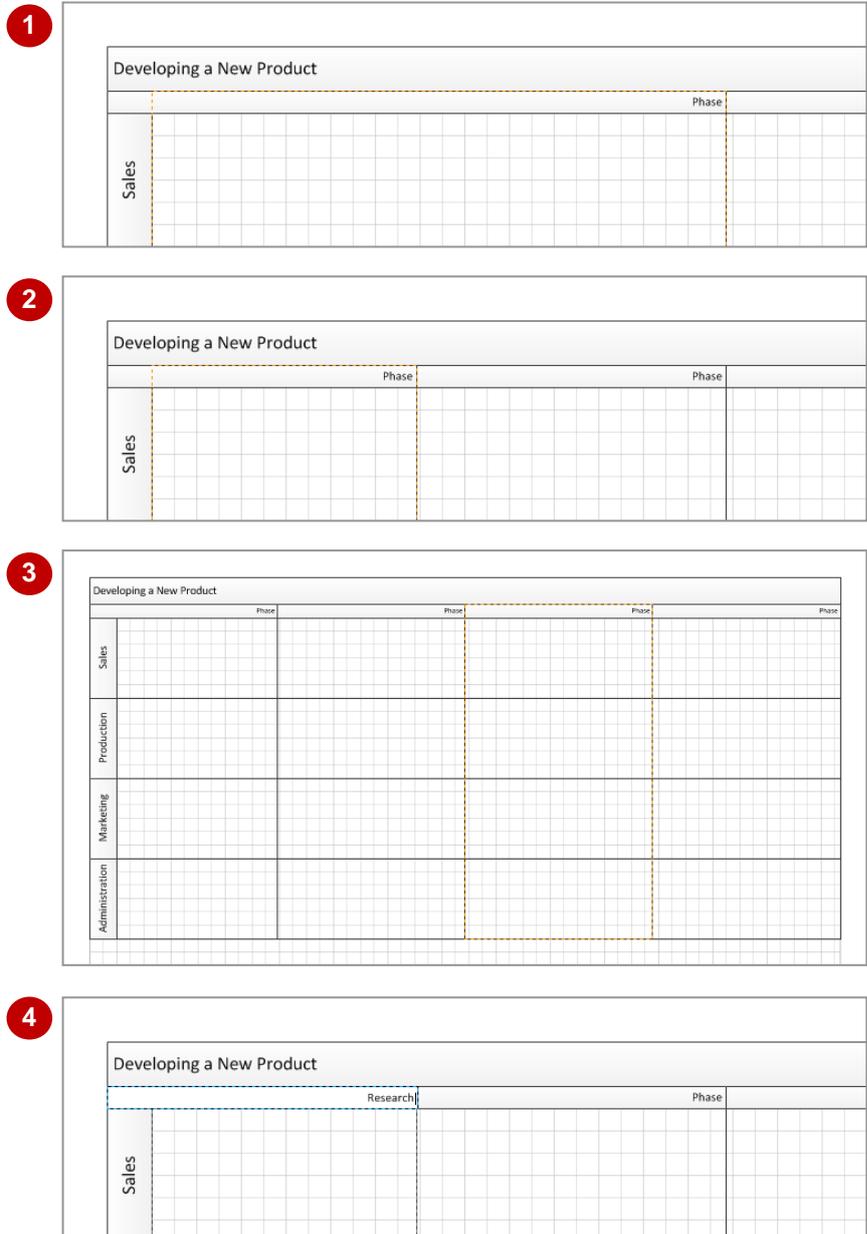
Development, Testing and Release. On a horizontal cross functional flowchart, phases appear with a black vertical line (known as a separator) and phase label which you can edit.

Try This Yourself:

Same File

Continue using the previous file or open V516 Cross Function_3.vsd...

- 1 Click on **Separator**  in the **Insert** group to insert a separator half way along the chart
- 2 With the left hand phase selected (orange dashed border), repeat step 1 to insert another separator half way between the start and middle of the chart
- 3 Click on the third **Phase** label to select the last phase, then repeat step 1 to create another phase
Your chart should have four phases. Let's edit the label text...
- 4 Double-click on the first phase's label and type **Research**
- 5 Repeat step 4 to add the labels: **Development**, **Testing** and **Release**, then press **Esc** twice



For Your Reference...

To **create** a **phase**:

1. Click on **Separator**  in the **Insert** group on the **Cross-Functional Chart** tab
2. Double-click on the phase label, type the label and press **Esc**

Handy to Know...

- Note: If you deselect **Show Separators**  in the **Design** group, your separators and phase names will be deleted. Clicking on **Show Separators**  again will not redisplay them. You must click on **Undo**  and select **Show Separators** to redisplay the phase details.

ADDING SHAPES

You add shapes to a cross functional chart using the same methods that you use to create a basic flowchart. There is one difference, however. When you add a shape to a cross functional

chart, Visio will automatically group the shape with the swimlane into which it is placed. If you want a shape to extend across swimlanes, you must resize it after connecting all shapes in the chart.

Try This Yourself:

Same File

Continue using the previous file or open V516 Cross Function_4.vsd...

1 Drag the **Process** shape as shown, then type **Develop product specification**

2 Drag the shapes as shown, typing the following text labels, and then use **AutoConnect** to connect the shapes

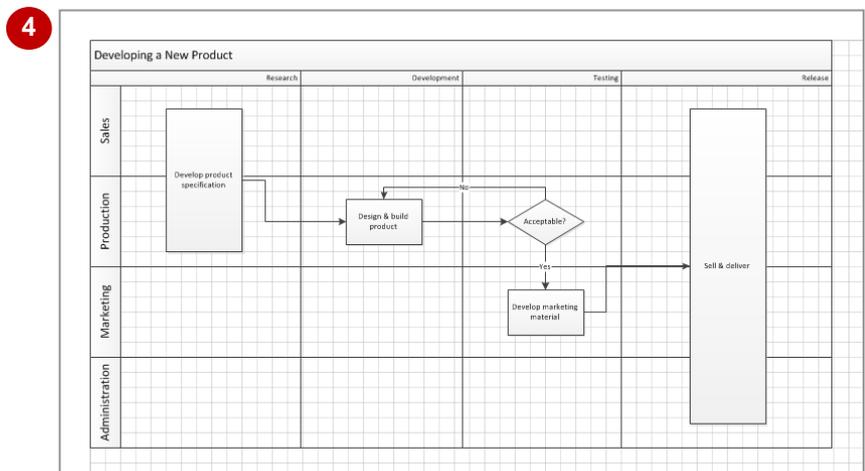
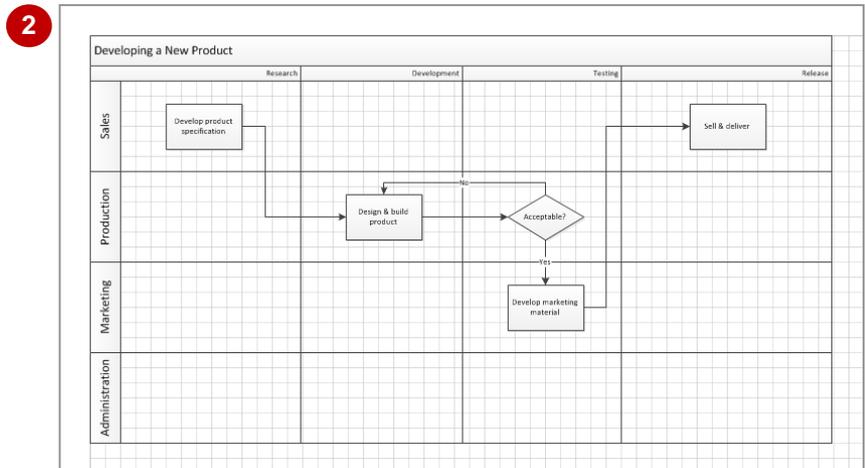
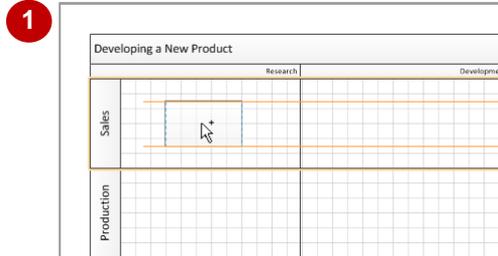
Design & build product
Acceptable?
Develop marketing material
Sell & deliver

The first and last processes need to extend across multiple swimlanes. If you resized them earlier, Visio would have simply resized the swimlane which is not what we're trying to portray...

3 Click on the first **Process** shape and resize it so that it extends across the **Sales** and **Production** swimlanes

You might want to rearrange the connector...

4 Repeat step **3** to extend the final **Process** shape to extend over all four swimlanes



For Your Reference...

To **add shapes**:

1. Drag the shape from the **Shapes** window into the desired swimlane and phase
2. Use the **AutoConnect** mini toolbar to add connected shapes or add extra shapes from the **Shapes** window and then connect them

Handy to Know...

- When you click on a shape, the swimlane containing the shape will appear with an orange outline. If the swimlane is not highlighted (i.e. the shape is not contained in the swimlane), move the shape a little and the swimlane will recognise it. If you move the swimlane later, the shape will also move.

ADJUSTING SWIMLANES AND PHASES

You may find that the default width of the swimlanes and phases is not appropriate for your drawing. For instance, the label for a department may need the swimlane to be slightly wider to

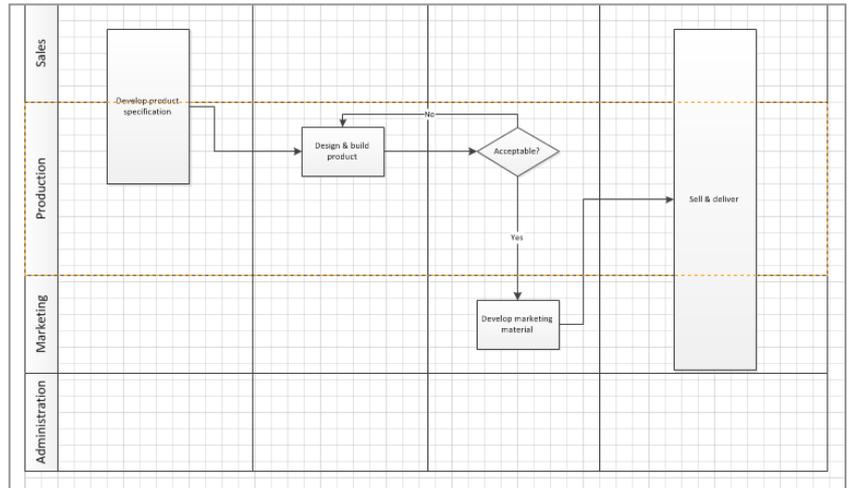
accommodate it. Similarly, specific phases of your process may include more steps than others so you may need to move the phase separators to fit the shapes.

Try This Yourself:

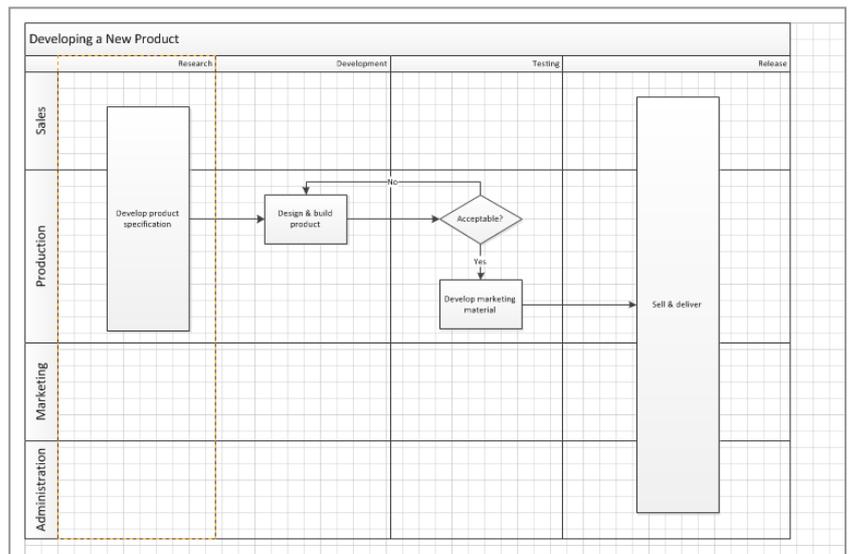
Same File

Continue using the previous file or open V516 Cross Function_5.vsd...

- 1 Click on the **Production** label to select the swimlane
- 2 Drag the bottom border until you reach the **M** for **Marketing**, then release the mouse button to enlarge the swimlane
The Marketing process moved with the swimlane but the two resized shapes didn't resize...
- 3 Extend the first and last process shapes to the bottom of **Production** and **Administration** respectively
You can move a shape into a different swimlane...
- 4 Click on the process shape in **Marketing** and drag it into **Production**, releasing the mouse button when **Production** is selected
You can adjust the phases...
- 5 Click on the **Research** label to select the phase, then drag the right border to the left to make the phase narrower
Notice that the width of the entire drawing will also reduce



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For Your Reference...

To **adjust** the width of a **swimlane** or **phase**:

1. Click on the swimlane or phase label
2. Drag the border to extend or reduce the width

Handy to Know...

- To change the overall length of a cross functional flowchart, click on the title bar and drag the right or bottom central handle. You'll move the chart if you drag a corner handle.
- You can only adjust the width of a phase if there is room – e.g., you may need to move shapes before you can move a separator.

FORMATTING CROSS FUNCTIONAL CHARTS

You can format cross functional charts as you do other drawings in Visio. You can fill shapes (e.g., if you work with several cross functional flowcharts it may be useful to fill swimlanes

similarly to colour code departments), format text and apply themes to the entire drawing. You can also apply different styles to a cross functional chart which will further change its appearance.

Try This Yourself:

Same File

Continue using the previous file or open V516 Cross Function_6.vsd...

- 1 Right-click on **Sales**, select **Format > Fill**, click on **Accent 5** (row 1, col 10) in **Fill Colour** and click on **[OK]**

Only the label will be filled...

- 2 Repeat step 1 to fill the other swimlanes as **Accent1**, **Accent3** and **Accent2**

Let's fill the rest of the lanes...

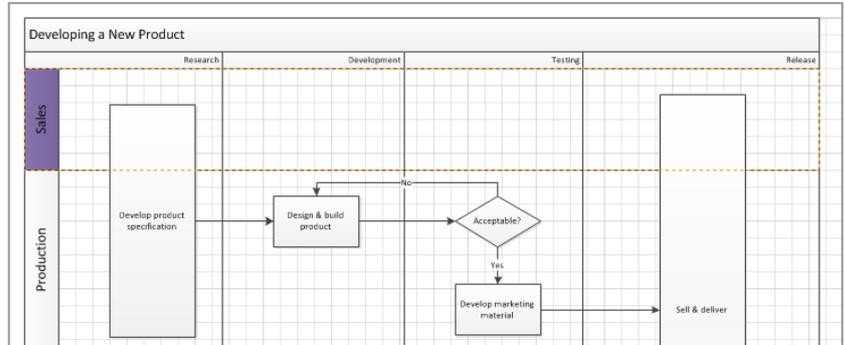
- 3 Click on **Style** in the **Design** group and click on **Style with Fill 1**

You could fill the title and phase bars using the same method if desired, or you could apply a theme which will also apply colour and effects to the shapes...

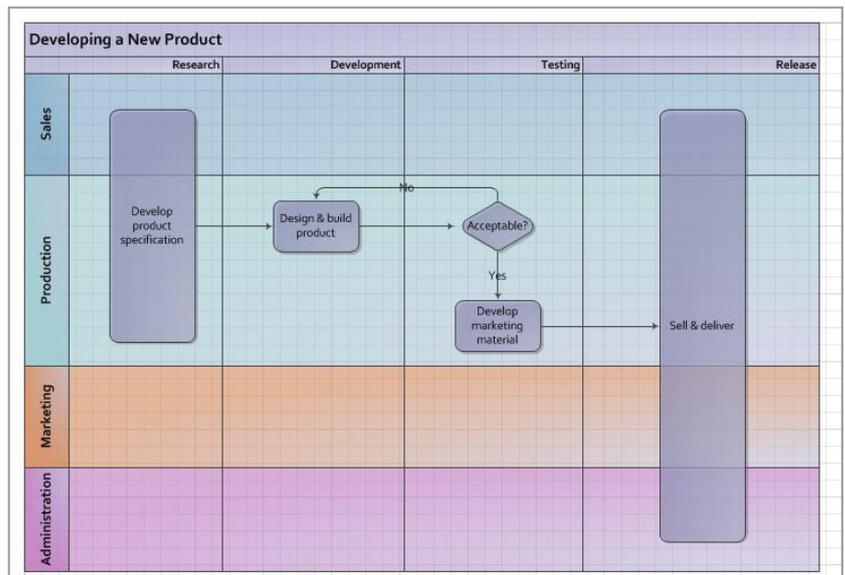
- 4 Click on the **Design** tab then apply the **Urban Colours**, **Bevel Highlight Effects** theme

Let's format the text ...

- 5 Format the:
 Title bar **14pt, bold**
 Phase bar **10pt, bold**
 Lane labels **bold**
 all text **10pt**



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In this sample, we lengthened the Administration swimlane slightly to fit the label and we removed the text background from the connector text. To do this we clicked on the **dialog box launcher** for **Font** and clicked on **None** under **Text background** on the **Text Block** tab.

For Your Reference...

To **apply** a **style**:

1. Click on **Style** in the **Design** group on the **Cross-Functional Chart** tab
2. Click on the desired style

To **fill** a **swimlane**:

1. Right-click on a label and select **Format > Fill**

Handy to Know...

- You can insert a new page containing an empty cross-functional chart based on the current cross functional chart. This includes any formatting that you've applied such as text formatting, styles, themes and fills.
- You can apply formatting to multiple lanes simultaneously by selecting them first.

