MULTIPLE KEY PERFORMANCE METRICS DASHBOARD.

AGENDA.

- Scenario – Big Picture
- Specifics
- Related Scenarios And Additional Functionality
- How People Use The Dashboard
- Why This Works
- Alternative Approach
- Commentary – Steve Wexler

SCENARIO – BIG PICTURE.

- You are tired of **maintaining** dozens of different dashboards that address **various aspects** of your business, so you decide to build a **single master dashboard** with **hundreds** of key performance indicators (**KPIs**) that monitor the health of the organisation.

- The dashboard needs to be **compact** and allow **stakeholders** to **easily focus** on the items that are pertinent to them and see how things fit with the **big picture**.

- The dashboard must show, **at a glance**, if you have met your **targets** for the current period as well as if you are consistently **making** or **missing** your targets.

- You also need to allow people to **zoom in** and see details about a **particular KPI**.

SPECIFICS.

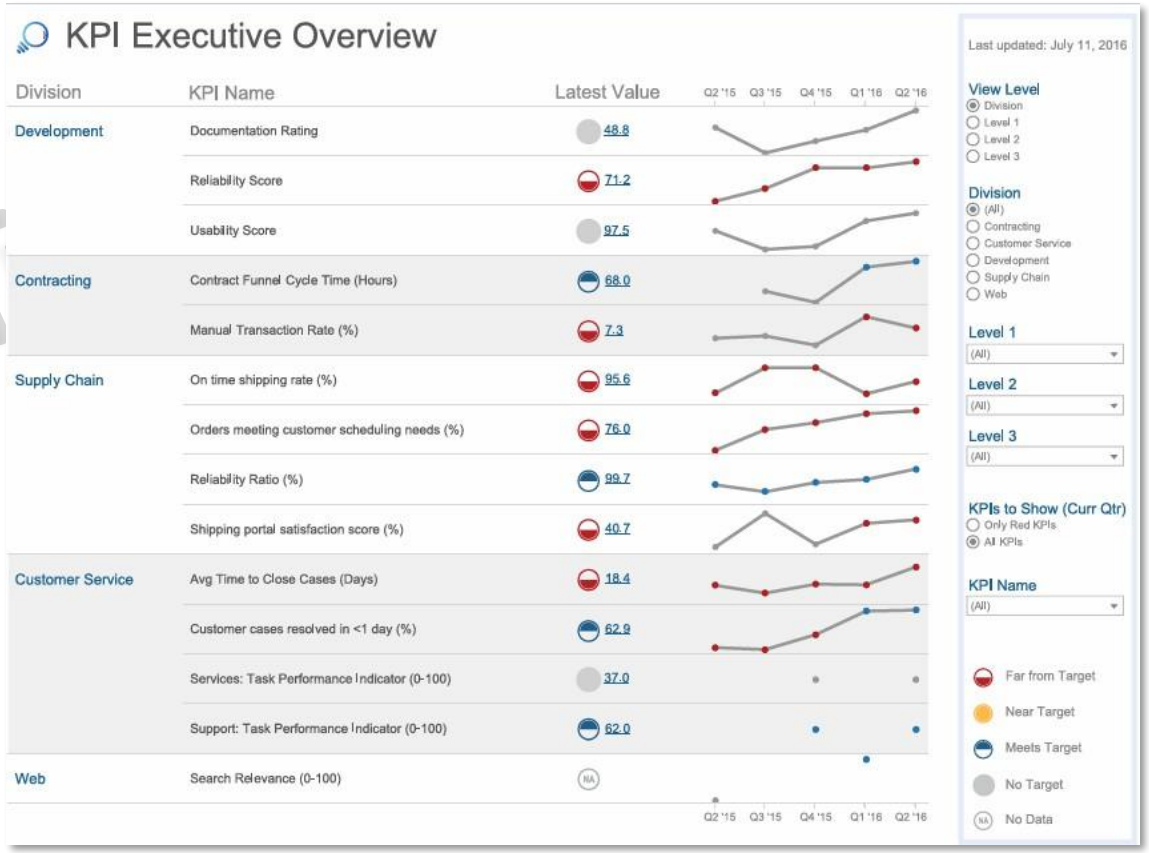
- You need to show **actual values versus targets** for all areas of the business with many ways of measuring **performance**.
- You want to make it **easy** to show only the areas of the business that are **underperforming**.
- Your company does quarterly reviews and needs to see the current quarter along with the **trends** from proceeding ones.
- Your company has set **thresholds** and requires **measured values** to stay within a given percentage above or below that goal.

RELATED SCENARIOS AND ADDITIONAL FUNCTIONALITY.

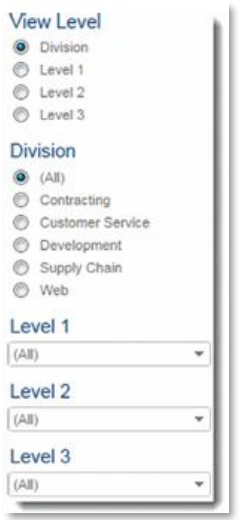
- You need to **navigate** all levels of an organisational hierarchy to **serve managers** at those levels.
- You need to provide **easy access** to **measurement definitions** and **goal values** for a particular **KPI**.
- You want to show the **numbers behind the calculations** like ratios or percentages in a detail view.
- You need a means of getting to more **specialised views** unique to a business unit of **KPI**.

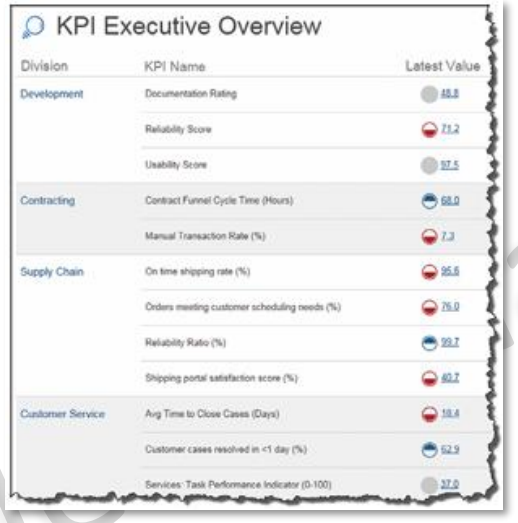
HOW PEOPLE USE THE DASHBOARD.

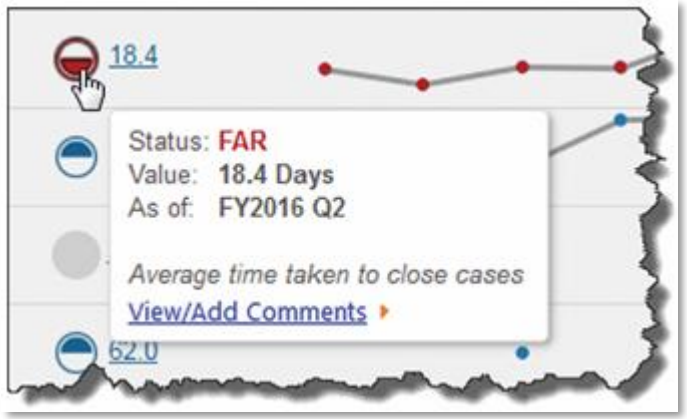
- The dashboard shows KPIs for many levels of hierarchy within an organisation.



HOW PEOPLE USE THE DASHBOARD.



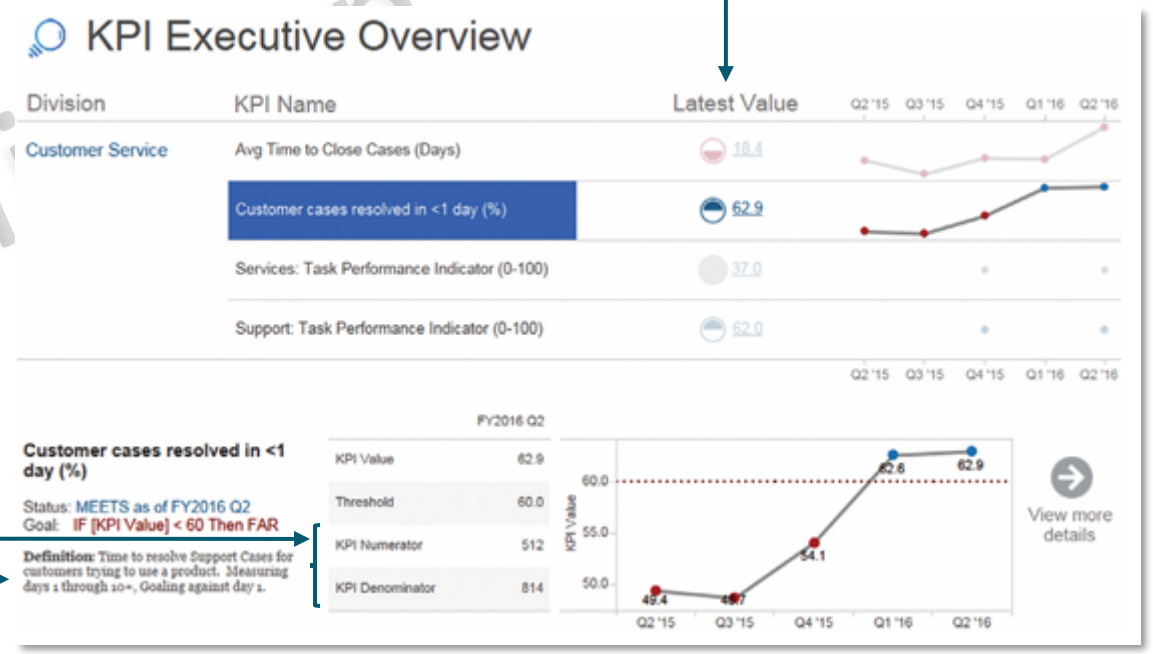




- Using **filters** along the **right** side of the dashboard the user can **select** a division and related business levels for his or her reporting needs.
- **Filter** and **parameter** controls allow the user to focus on the KPI associated with a particular division and level within that division.
- The **left** portion of the dashboard then shows the business level and details based on the **view level selection**.
- Hovering over a shape shows a **tool tip** with a definition and link to a system where users can annotate facts relevant to the selected KPI.

HOW PEOPLE USE THE DASHBOARD.

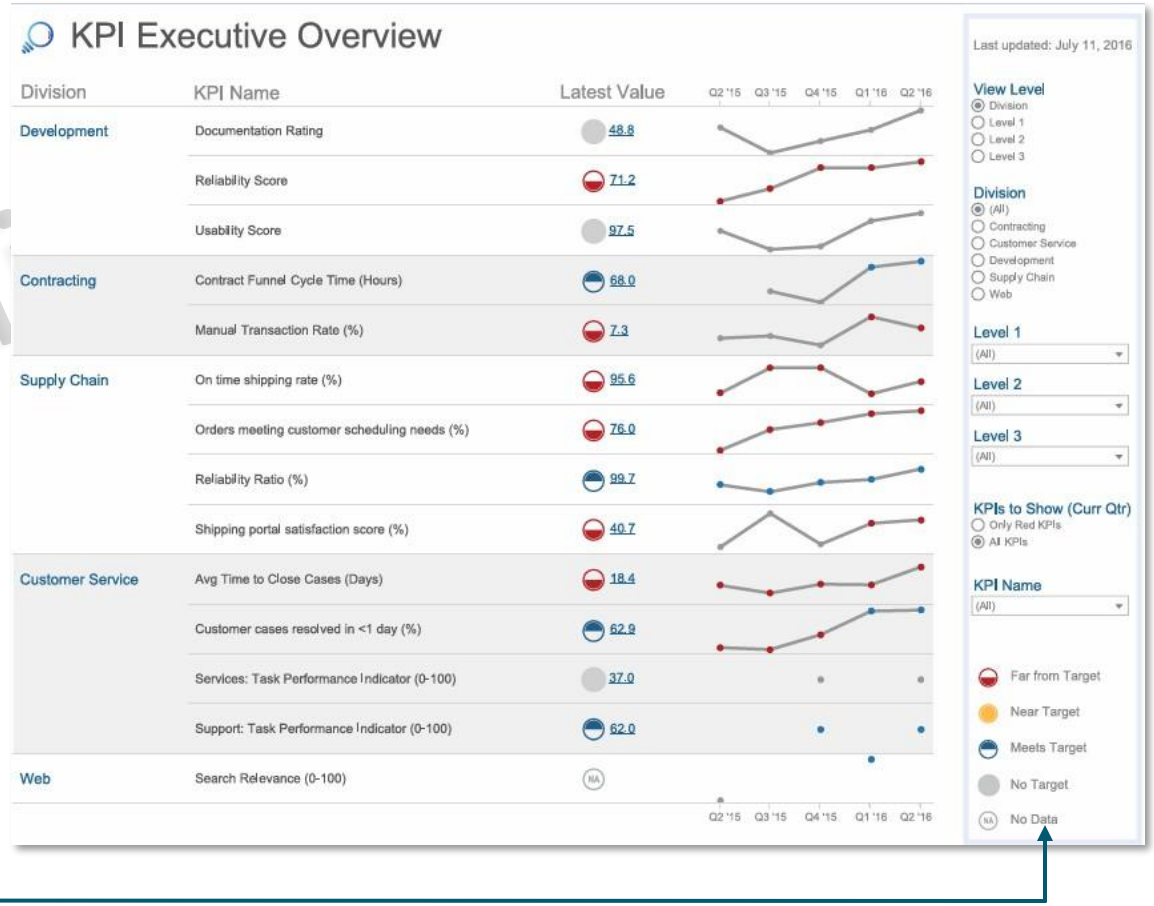
- When a user clicks a **KPI** name, a pane appears with **pertinent** details about that KPI.
- **Specifics** about the goal and whether the values are above or **below** a **threshold**.
- Details related to the current period's calculations. This example shows the cases resolved in one day (**numerator**) and the total cases handled (**denominator**).
- A **larger trend** view with the goal value as a **dotted line**.
- **Definition** of the selected KPI, which may include how it was **measured** or any **expectations** involved.
- A **link** to view more details on a separate dashboard designed specifically for the business unit KPI.



Selecting a KPI (in this example customer cases resolved in under one day) shows details about that KPI.

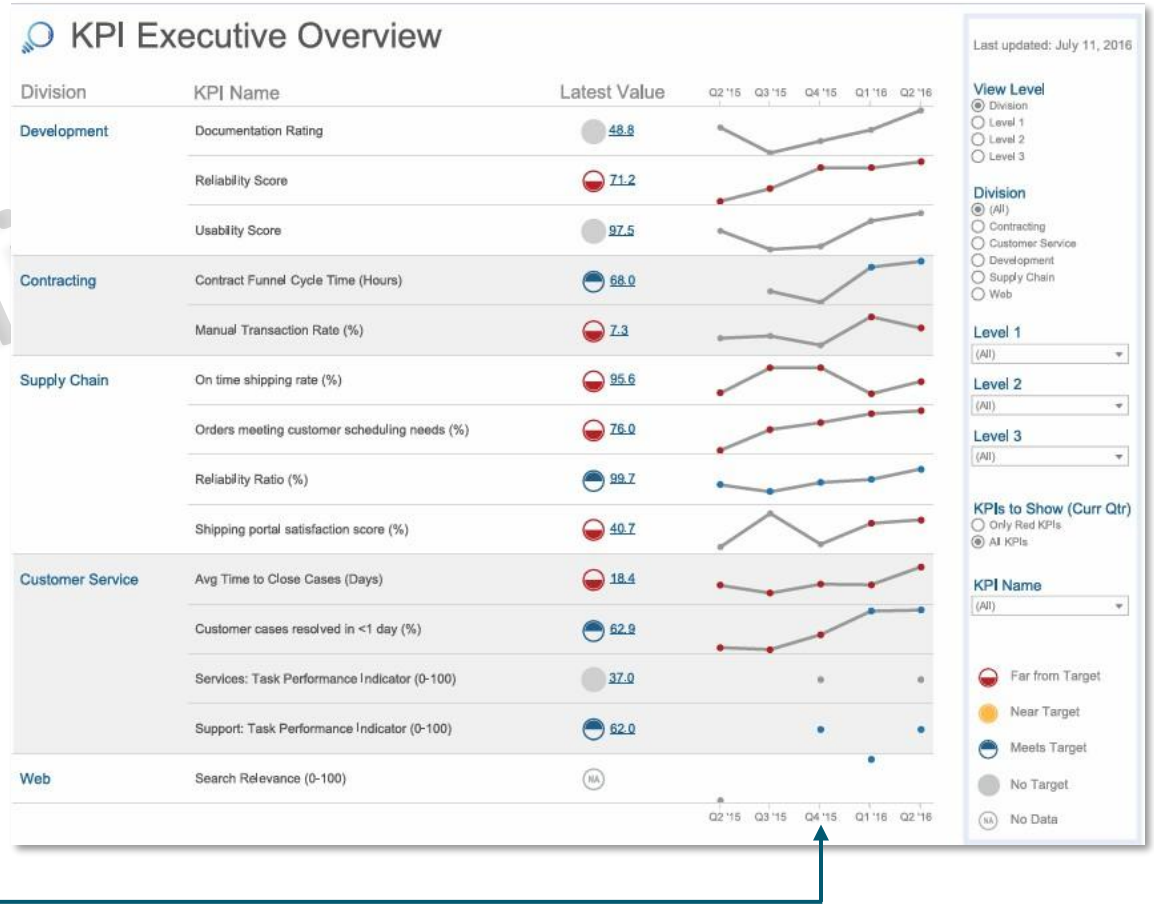
WHY THIS WORKS.

- **Shapes** add **context** for KPI values versus target.
  - **Circles** with filled areas above or below the centre show how the **current value** relates to the **target**.
  - The **different shapes** and the colour make it easy for the users to find **underperforming** business units.
  - **Grey coloured circles** show where **no target** is defined or where data is unavailable for the current period.



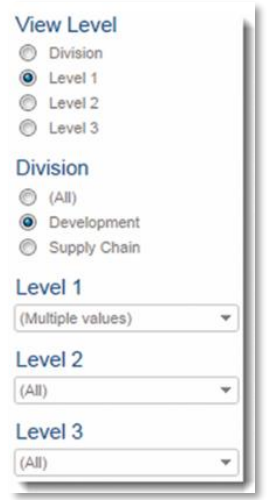
WHY THIS WORKS.

- **Sparklines** indicate performance **improvement** or **decline**.
  - This dashboard shows several KPIs with **no set target**.
    - For these KPIs, the goal is simply to **continue improving** each period.
  - **Trendlines** easily show **improvement** (or lack thereof) in those areas.
  - Where there is a set target, the trend shows the number of **successive periods** that the business did or did not **meet** its **goals**.
  - This gives **important** background to find out if a certain area is an ongoing concern or a **one-time problem**.



WHY THIS WORKS.

- **Business hierarchy** navigation serves multiple needs in **one view**.
  - Showing values for the **sublevels** in the **same view** as higher business levels helps users **diagnose points** of interest without **switching** back and forth among dashboards.



- **Filters** allow users to **focus** on KPIs that are **below threshold**.
  - With literally **hundreds of KPIs**, the filter shown to the right allows users to **focus** just on **KPIs** that are **below target** for the current period.

Division	KPI Name	Latest Value
Development	Reliability Score	71.2
Contracting	Manual Transaction Rate (%)	7.3
Supply Chain	On time shipping rate (%)	95.6
	Orders meeting customer scheduling needs (%)	76.0
	Shipping portal satisfaction score (%)	40.7
Customer Service	Avg Time to Close Cases (Days)	18.4

WHY THIS WORKS.

- How do you **visualise** the **progress** towards a goal ?
  - In this dashboard we chose a variety of **circle icons**.

- To make **identification easy**, viewers must **learn** the colour and shape of each icon.
  - That's a **small disadvantage**, although not much of a burden for anyone using the dashboard regularly.

- Since it is a **KPI dashboard**, it should be used **regularly**.
  - The circles also take up **very little space**, which is a big **advantage**.

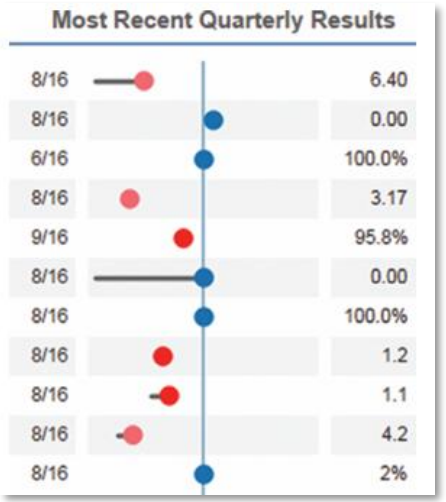
ALTERNATIVE APPROACH.

- Next, we propose an **alternative** approach on a similar KPI tracking dashboard.
  - This dashboard tracks occurrences of infection issues and nursing issues, such as the number of falls, number of cases of '*Clostridium difficile' etc.*
  - *There are major **similarities** to the first dashboard.*

One row per KPI
Coloured sparkline showing trends
Allows lookup of exact values.

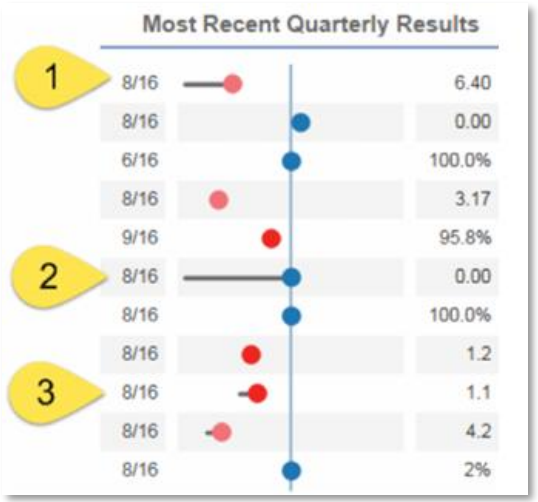
ALTERNATIVE APPROACH.

- The big difference is the **lollipop** in the **centre**, which is an interesting and **useful approach** to tracking progress.
- Here's how the **lollipop** components work:
  - The vertical **blue** line marks the target.
    - A circle to the **right** is meeting the target.
    - A circle to the **left** is underperforming.
  - **Blue** circles show targets that are performing above target.
  - **Red** circles indicate low-performing, high-priority measures compared to target.
  - **Pink** circles represent low-performing, lower priority measures.
- The **lollipop stick** shows **comparison** to the prior period (usually a month, sometimes a quarter).
- The stick runs from the previous period's performance level to the current period's circle.



ALTERNATIVE APPROACH.

- Let's see how the **lollipop** chart works.
  - The **circle** marked 1 is **pink**, indicating that it is not high priority for the group selected in this dashboard.
    - It is **underperforming**, but the lollipop stick indicates that it is **improving**.
  - The circle marked 2 is **blue**. It is **on target**, just.
    - The **lollipop stick** shows that there has been a very large **improvement** over the last period.
  - The circle marked 3 is **red**.
    - It's a **high-priority** target that is **underperforming** but has improved a little since the last period.



COMMENTARY – STEVE WEXLER.

- This dashboard **solves** a **major challenge**.
  - How do you **visualise hundreds of KPIs**?
    - One way is by **extensive filtering**.
    - Another way might be to pack all the KPIs in **tiny sparklines** on a huge screen.
    - Although they are valid design solutions, it might be worth asking a more fundamental business question.

- **Why does the business have so many KPIs**?
  - When **designing** dashboards, it is always worth while to challenge the design brief.
  - In this case, how will you **measure** whether the KPIs get looked at ?
  - I would recommend this business monitors which KPIs are **actually looked at**.
  - If many of the hundreds of KPIs are never looked at, I would recommend the business **reassesses** how we **measure success**.