**Power BI HSE Activity Dashboard: Step-by-Step Process**

**1. Data Preparation**

**Import Data into Power BI**

1. **Open Power BI Desktop** → Click **"Get Data"** → Select **Excel** → Load both tables:
   * HSE-Activities-Main (Activities data)
   * HSE-Participants (Participant details)
2. **Clean Data (Power Query Editor)**:
   * Remove duplicates.
   * Ensure Scheduled Date/Actual Date are in **Date** format.
   * Create a **Date Table**:

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DateTable = CALENDAR(MIN('HSE-Activities-Main'[Actual Date]), MAX('HSE-Activities-Main'[Actual Date]))

Add columns for **YearMonth** (e.g., FORMAT([Date], "YYYY-MM")).

1. **Link Tables**:
   * Create a relationship between HSE-Activities-Main[Activity ID] and HSE-Participants[Activity ID].

**2. Build Visualizations**

**1. Timeline Chart (Line Chart)**

* **Visual**: Line Chart
* **X-axis**: DateTable[YearMonth]
* **Y-axis**: Count of Activity ID (from HSE-Activities-Main)
* **Filters**: Add a slicer for **Year** (from DateTable).

**2. Risk Level Breakdown (Donut Chart)**

* **Visual**: Donut Chart
* **Values**: Count of Activity ID
* **Legend**: Risk Level (Low/Medium/High)

**3. Activity Category Breakdown (Bar Chart)**

* **Visual**: Stacked Bar Chart
* **X-axis**: Category (Leadership, Compliance, etc.)
* **Y-axis**: Count of Activity ID

**4. Top 5 Departments by Participation (Horizontal Bar)**

* **Visual**: Horizontal Bar Chart
* **X-axis**: Count of Participant Name (from HSE-Participants)
* **Y-axis**: Department
* **Top N Filter**: Show **Top 5**.

**5. Approval Status (Pie Chart)**

* **Visual**: Pie Chart
* **Values**: Count of Activity ID
* **Legend**: Approval Status

**6. Activities with Incidents Reported (Table)**

* **Visual**: Table
* **Columns**:
  + Title/Description
  + Department
  + Risk Level
  + Incidents Reported?

**3. Add Interactive Filters**

* **Slicers Panel** (Left/Right Sidebar):
  1. **Year** (from DateTable).
  2. **Department** (from HSE-Activities-Main).
  3. **Risk Level** (Low/Medium/High).
  4. **Category** (Leadership, Training, etc.).

**4. Enhancements**

**KPIs (Card Visuals)**

* **Total Activities**: COUNTROWS(HSE-Activities-Main)
* **Incident Rate**: DIVIDE(COUNTROWS(FILTER(HSE-Activities-Main, [Incidents Reported?] = "Yes")), COUNTROWS(HSE-Activities-Main))
* **Avg Engagement Score**: AVERAGE(HSE-Participants[Engagement Score])

**Tooltips**

* Hover over charts to see details (e.g., activity titles, participant feedback).

**5. Final Dashboard Layout**

| **Section** | **Visual** |
| --- | --- |
| **Header** | Title + Year Slicer |
| **Top Row** | Timeline Chart + KPIs |
| **Middle Left** | Risk Donut + Category Bar |
| **Middle Right** | Approval Pie + Top 5 Depts |
| **Bottom** | Incidents Table |
| **Sidebar** | Filters (Year, Dept, etc.) |

**6. Publish & Share**

1. **Publish to Power BI Service** → Share with stakeholders.
2. **Set Auto-Refresh** (if connected to a live data source).
3. **Export to PDF/PPT** for static reports.

**Mockup Output**

*(Visual: Interactive filters update all charts dynamically.)*

**Benefits**

✅ **Real-Time Monitoring**: Track HSE activity trends.  
✅ **Risk Prioritization**: Focus on high-risk areas.  
✅ **Compliance Tracking**: Audit-ready visualizations.

**Next Steps**:

* Connect to live HRIS (e.g., Workday) for auto-updates.
* Add drill-downs (e.g., Department → Individual Activities).

Need adjustments? Let’s refine together! 🚀

show me the measure and calculations or columns formulas where needed

**Power BI HSE Dashboard: Measures & Calculations**

Here are the key DAX measures and calculated columns needed for your HSE Activity Dashboard:

**1. Date Table Calculations**

**Create a Date Table (if not connected to a date source)**

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DateTable =

VAR MinDate = MIN('HSE-Activities-Main'[Actual Date])

VAR MaxDate = MAX('HSE-Activities-Main'[Actual Date])

RETURN

ADDCOLUMNS(

CALENDAR(MinDate, MaxDate),

"Year", YEAR([Date]),

"Month", MONTH([Date]),

"YearMonth", FORMAT([Date], "YYYY-MM"),

"Quarter", "Q" & QUARTER([Date])

)

**Link to**HSE-Activities-Main via Actual Date → Date.

**2. Key Measures**

**1. Count of Activities**

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Total Activities = COUNTROWS('HSE-Activities-Main')

**2. Completed Activities (for Timeline Chart)**

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Completed Activities =

CALCULATE(

[Total Activities],

'HSE-Activities-Main'[Status] = "Completed"

)

**3. Incident Rate (%)**

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Incident Rate =

DIVIDE(

COUNTROWS(FILTER('HSE-Activities-Main', 'HSE-Activities-Main'[Incidents Reported?] = "Yes")),

[Total Activities],

0

)

**4. Average Engagement Score**

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Avg Engagement Score =

AVERAGE('HSE-Participants'[Engagement Score])

**5. High-Risk Activity Count**

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High Risk Activities =

CALCULATE(

[Total Activities],

'HSE-Activities-Main'[Risk Level] = "High"

)

**3. Calculated Columns (if needed)**

**1. Activity Duration (Hours)**

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Duration (Hours) =

DATEDIFF(

'HSE-Activities-Main'[Start Time],

'HSE-Activities-Main'[End Time],

HOUR

)

**2. Overdue Actions (for Compliance Tracking)**

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Is Overdue =

IF(

AND(

'HSE-Activities-Main'[Deadline for Actions] < TODAY(),

'HSE-Activities-Main'[Completion Status] <> "Completed"

),

"Overdue",

"On Track"

)

**4. Dynamic Top 5 Departments**

**Measure for Top 5 Departments by Participation**

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Top 5 Departments =

VAR DepartmentCounts =

SUMMARIZE(

'HSE-Participants',

'HSE-Participants'[Department],

"Participant Count", COUNTROWS('HSE-Participants')

)

VAR TopDepartments =

TOPN(

5,

DepartmentCounts,

[Participant Count],

DESC

)

RETURN

CONCATENATEX(

TopDepartments,

'HSE-Participants'[Department] & ": " & [Participant Count],

", "

)

**5. Slicer-Driven Measures**

**Dynamic Count Based on Filters**

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Filtered Activity Count =

CALCULATE(

[Total Activities],

ALLSELECTED('HSE-Activities-Main')

)

**6. Tooltip Enhancements**

**Measure for Activity Details (Tooltip)**

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Activity Details =

VAR CurrentActivity = SELECTEDVALUE('HSE-Activities-Main'[Activity ID])

RETURN

CONCATENATEX(

FILTER(

'HSE-Activities-Main',

'HSE-Activities-Main'[Activity ID] = CurrentActivity

),

"Title: " & [Title/Description] &

" | Status: " & [Status] &

" | Risk: " & [Risk Level],

", "

)

**How to Apply These**

1. **Measures**: Create in "Model View" → "New Measure".
2. **Columns**: Create in "Data View" → "New Column".
3. **Visuals**: Drag measures into charts (e.g., Completed Activities for the timeline).

**Example Dashboard Output**

| **Visual** | **Fields Used** |
| --- | --- |
| **Timeline (Line Chart)** | DateTable[YearMonth], [Completed Activities] |
| **Risk Donut** | [Total Activities], [Risk Level] |
| **Top 5 Depts (Bar)** | [Top 5 Departments] |

**Filters will automatically apply to all measures!**

Need adjustments? Let me know which part needs refinement!