Visualisation with Tableau & Highcharts

CENTR R&D workshop
Luxembourg Oct 2017
Signs you should consider a BI tool

- Lots of data, limited information
- Disconnect between IT & data analyst/marketing/management
- Data analysts can’t always code
- Reliance on pivot tables
BI and data visualisation tools: plenty of choice

Microsoft Power BI, SAP Analytics, Chartio, Clear Analytics, Excel, Microstrategy, Grafana, Redash, Yellowfin, FusionCharts, **Highcharts**, **Tableau**, QlickView, SAP Business Intelligence, Sisence, Plotly, Yellowfin BI, Adaptive Suite, Hitachi....
The CENTR ‘journey’...
High Charts: ‘relatively’ easy templates

```javascript
<script src="https://code.highcharts.com/highcharts.js"></script>
<script src="https://code.highcharts.com/modules/series-label.js"></script>
<script src="https://code.highcharts.com/modules/exporting.js"></script>

<div id="container">
  <script>
    function chart(options) {
      var container = document.getElementById('container');
      return highcharts(options, container, function() { });
    }

    var chart = chart({
      chart: {
        defaultPlotOptions: {
          series: {
            marker: {
              enabled: false
            }
          }
        }
      },
      title: {
        text: 'Solar Employment Growth by Sector, 2010-2016
Source: thesolarfoundation.com'
      },
      subtitle: {
        text: '
Source: thesolarfoundation.com'
      },
      xAxis: {
        type: 'datetime',
        title: {
          text: 'Years'
        }
      },
      yAxis: {
        title: {
          text: 'Number of Employees'
        },
        plotLines: [
          {value: 20000, color: '#888888', width: 1},
          {value: 15000, color: '#888888', width: 1},
          {value: 10000, color: '#888888', width: 1},
          {value: 5000, color: '#888888', width: 1}
        ]
      },
      series: [
        {
          name: 'Installation',
          data: [43934, 52503, 57177, 69658, 97031, 119931, 137143, 154175]
        },
        {
          name: 'Manufacturing',
          data: [24916, 24064, 29742, 29851, 32490, 30282, 38121, 40434]
        },
        {
          name: 'Sales & Distribution',
          data: [11744, 17722, 16005, 19771, 20185, 24377, 32147, 39387]
        },
        {
          name: 'Project Development',
          data: [71248, 71190, 22463, 24490, 24923, 24923, 24923, 24923]
        },
        {
          name: 'Other',
          data: [12345, 67890, 12345, 67890, 12345, 67890, 12345, 67890]
        }
      ]
    });
  </script>
</div>
```
High Charts: basic charting
High Charts: Plugins vs development

- Select Chart: Growth (%)
- Select TLD/s

- Median line
- Time selector
- Y axis date format
- Variable in slider

- Select variable and TLD/s
- Export data
- CSS
- Time slider
The grand master of data analytics and visualisation.. 😊

*Also one of the most expensive... 😞*
Live demo....

- Connecting to a data source
- Building a dashboard (Basic charts & functions)
- Publishing
- Use cases
Why Tableau?

- Speed in exploration and dashboard creation
- Low learning curve
- Empower users to view/explore data
- More time in data, less in development
- Function flexibility, design and aesthetics
- Other pros: Data blending, geo-maps, LOD expressions, animation, forecasting, user community
When choosing a BI tool

• **Who are the authors?** (eg. developer, data analyst?)
  • How much technical knowledge needed?
  • Time in development v time in data exploration

• **Who is the audience?**
  • What functionality is needed?
  • How beautiful should it look?

• **Licencing: public or private access?**  Eg.
  • Tableau Public (free)
  • Tableau Online/Server (cost per user)
  • Offline packaged workbooks (free)
Thank you

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