Root cause

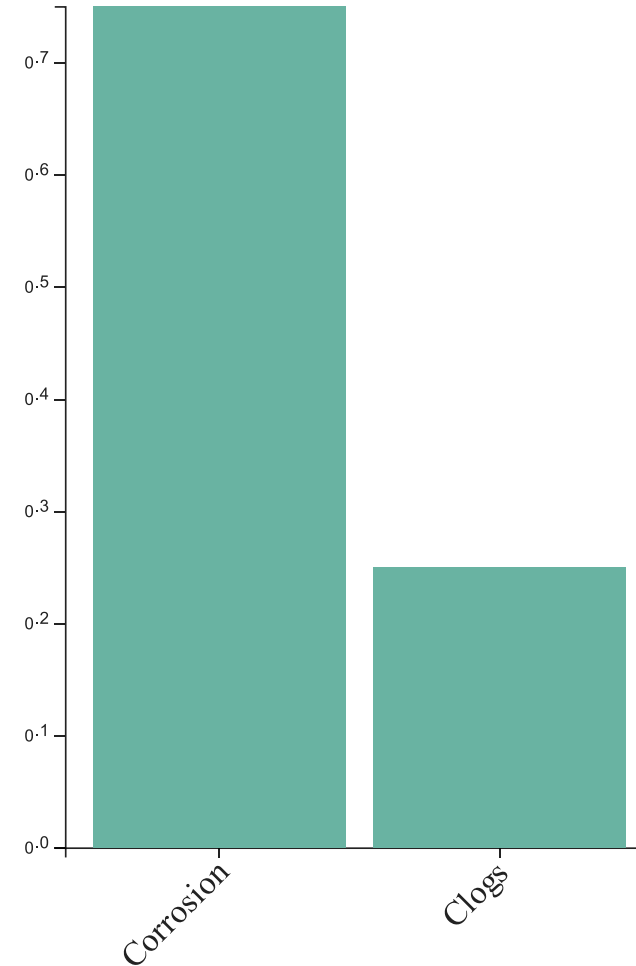| reason	probability	Dependencies
Rusty pipe	0.15625	Frozen pipe (33.00%), Clogs (17.00%), Vacuum implosion (33.00%), O-ring broken (17.00%),
Vacuum implosion	0.125	Rusty pipe (11.00%), Vacuum implosion (11.00%), Too high pressure in (22.00%), Corrosion (33.00%), Ventil broke (11.00%), impact dama (11.00%),
Too high pressure in	0.125	Too high pressure in (14.00%), O-ring broken (57.00%), Rusty pipe (14.00%), Ventil broke (14.00%),
Corrosion	0.125	Corrosion (75.00%), Clogs (25.00%),
Frozen pipe	0.09375	Clogs (14.00%), Rusty pipe (14.00%), Vacuum implosion (29.00%), Ventil broke (14.00%), impact damage (14.00%), Corrosion (14.00%),
Clogs	0.09375	Rusty pipe (25.00%), Ventil broke (25.00%), Tree root enchroachment (25.00%), Frozen pipe (25.00%),
O-ring broken	0.09375	impact damage (25.00%), Rusty pipe (25.00%), O-ring broken (25.00%), Too high pressure in (25.00%),
Ventil broke	0.09375	Tree root enchroachment (20.00%), Too high pressure in (20.00%), Rusty pipe (20.00%), impact damage (20.00%), Corrosion (20.00%),
impact damage	0.0625	Clogs (33.00%), Ventil broke (33.00%), Corrosion (33.00%),
Tree root enchroachment	0.03125	Too high pressure in (50.00%), O-ring broken (50.00%),

Pareto diagram

Obvious

Duration per component A

Sum(duration(A))/totalDuration

Red! Should Investigate

Gradient color based on weight = sum(P(B)*Duration(B))

0.76 0.80 0.84 0.87 0.91 0.93 0.96 0.98 0.99 1.0

Duration(Seconds)

3,500
3,000
2,500
2,000
1,500
1,000
500
0

Rusty pipe Corrosion Vacuum implosion Clogs O -ring broken o high pressure in Ventil broke impact damage Frozen pipe oot enchroachment
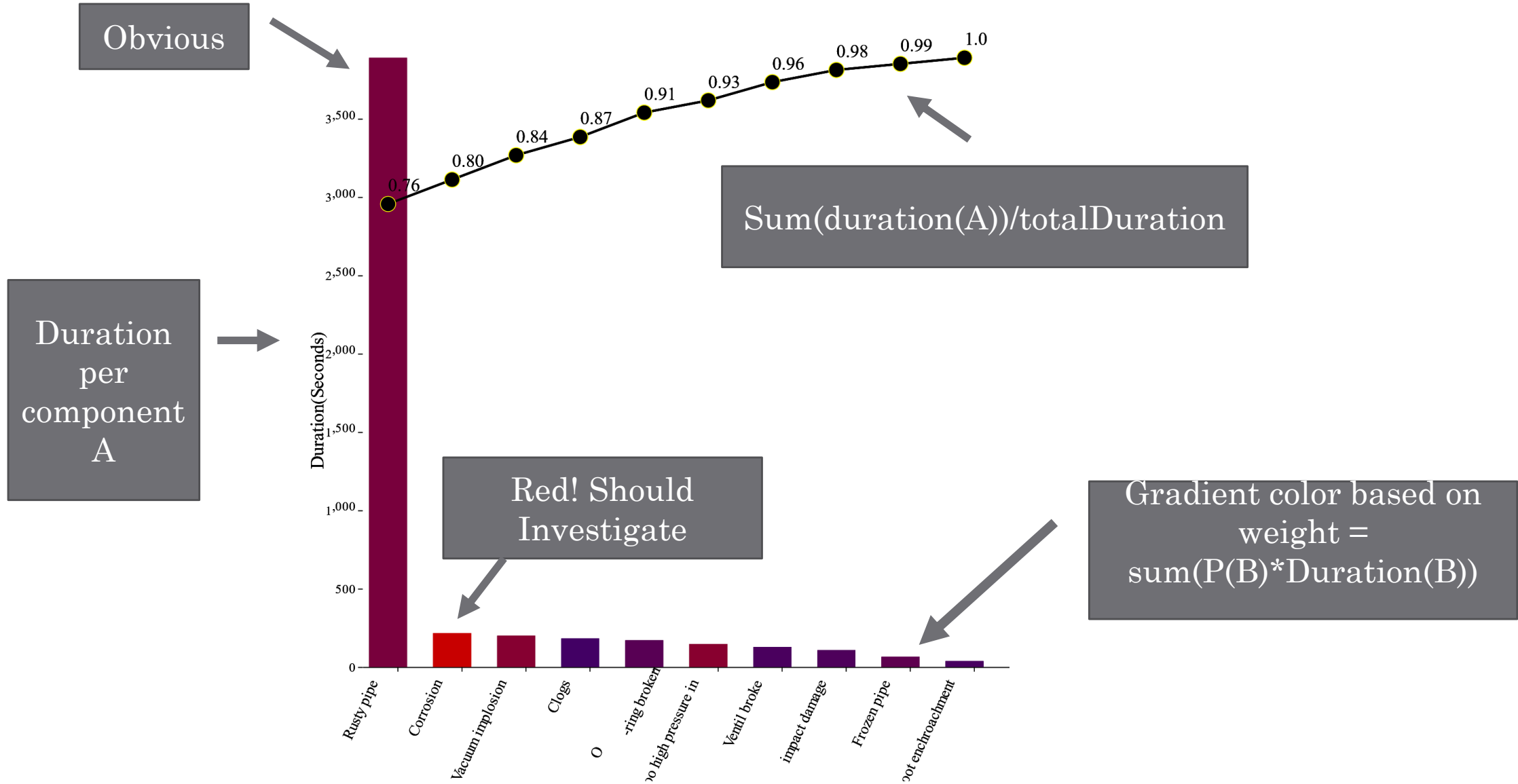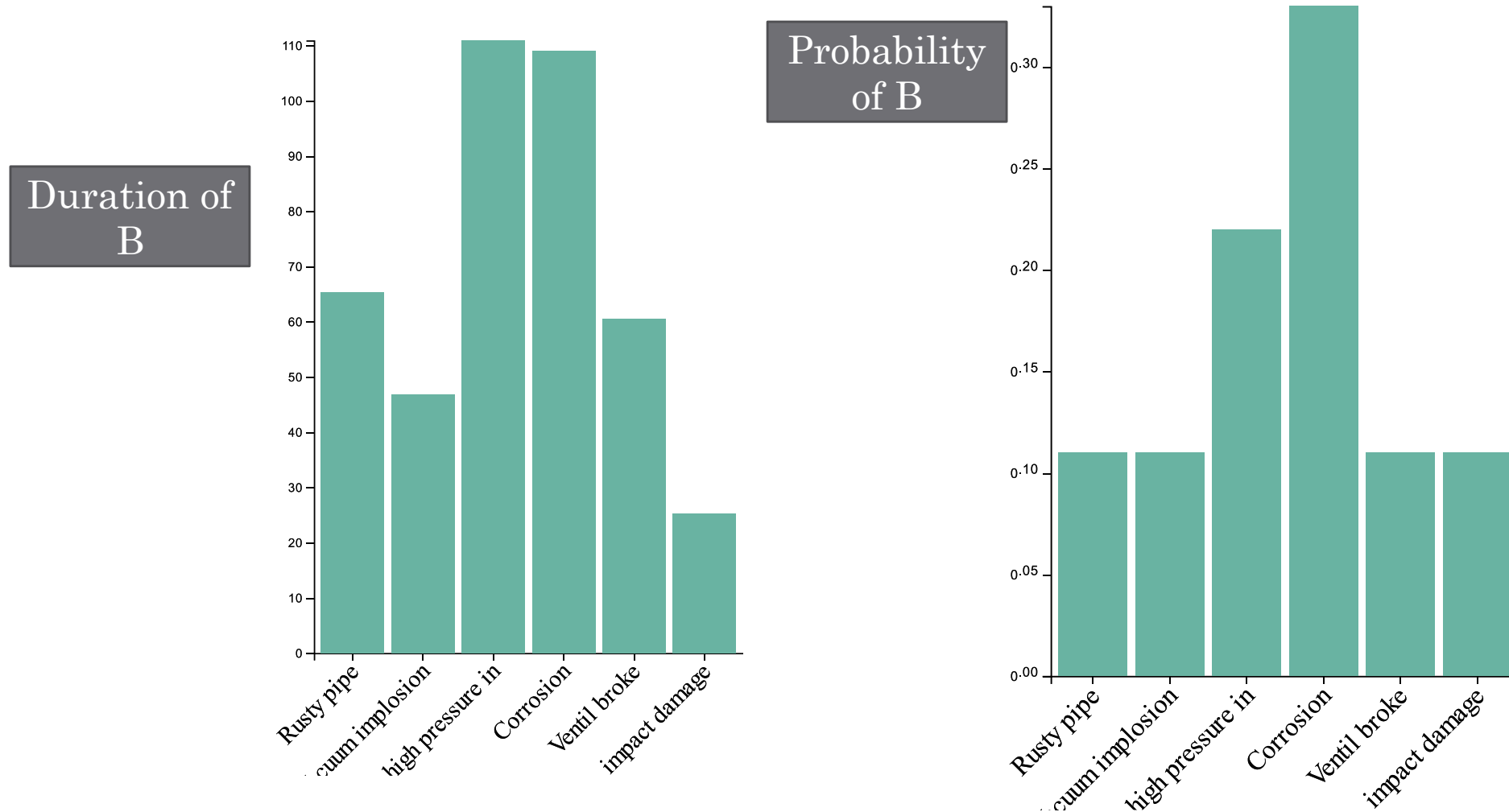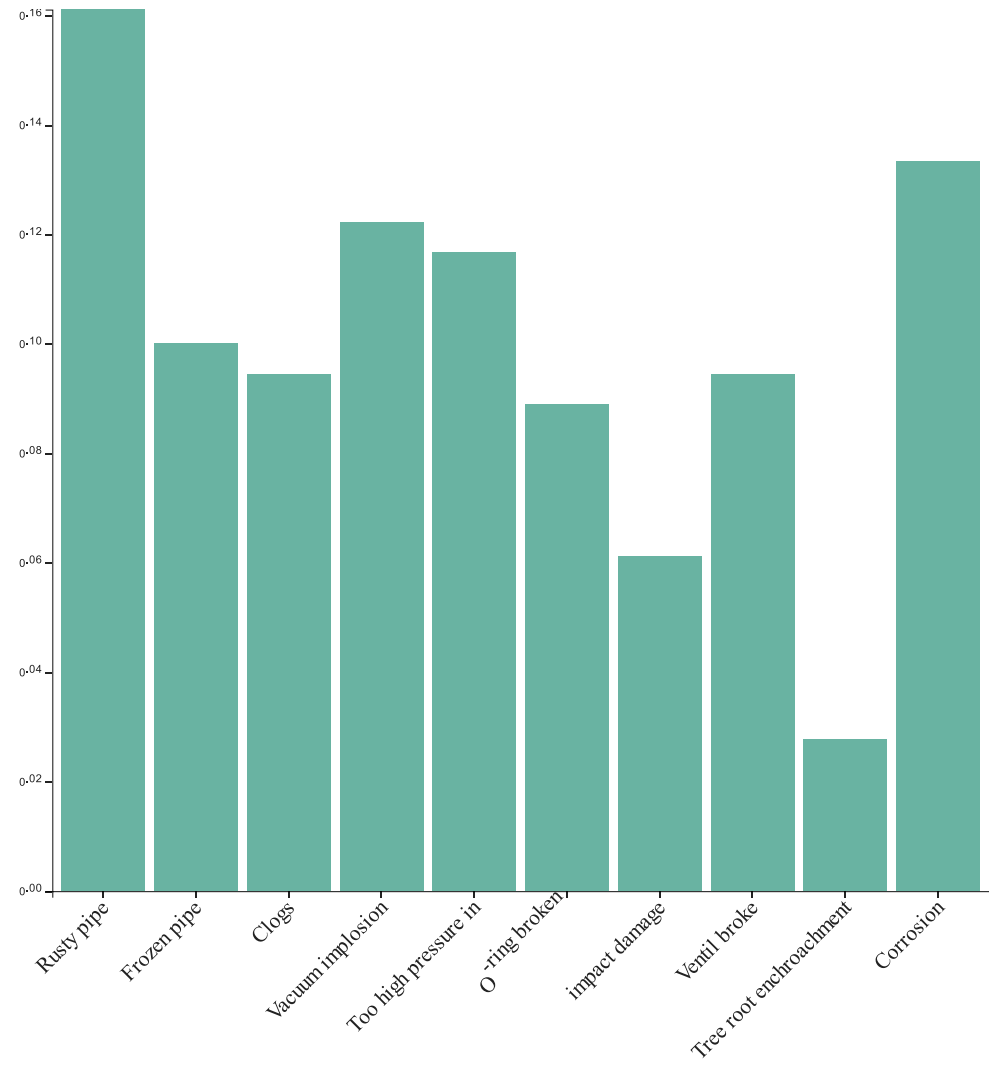
Drilldown from Pareto diagram - clicked on Corrosion
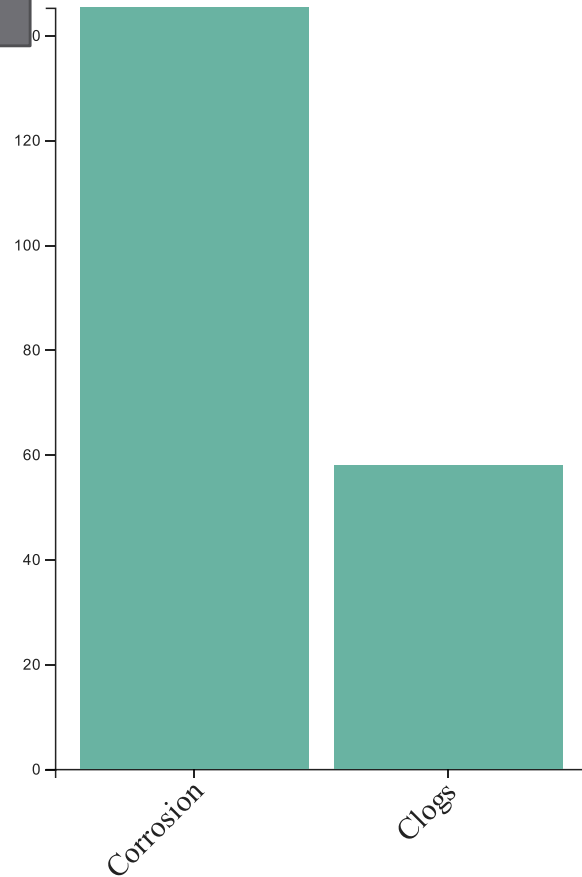
Drilldown from Pareto diagram - clicked on Vacuum implosion

Frequency per Week

Resources

- Code and data used can be found at: https://github.com/Renani/Emission

- Framework: React og D3js

- Other tools: Excel