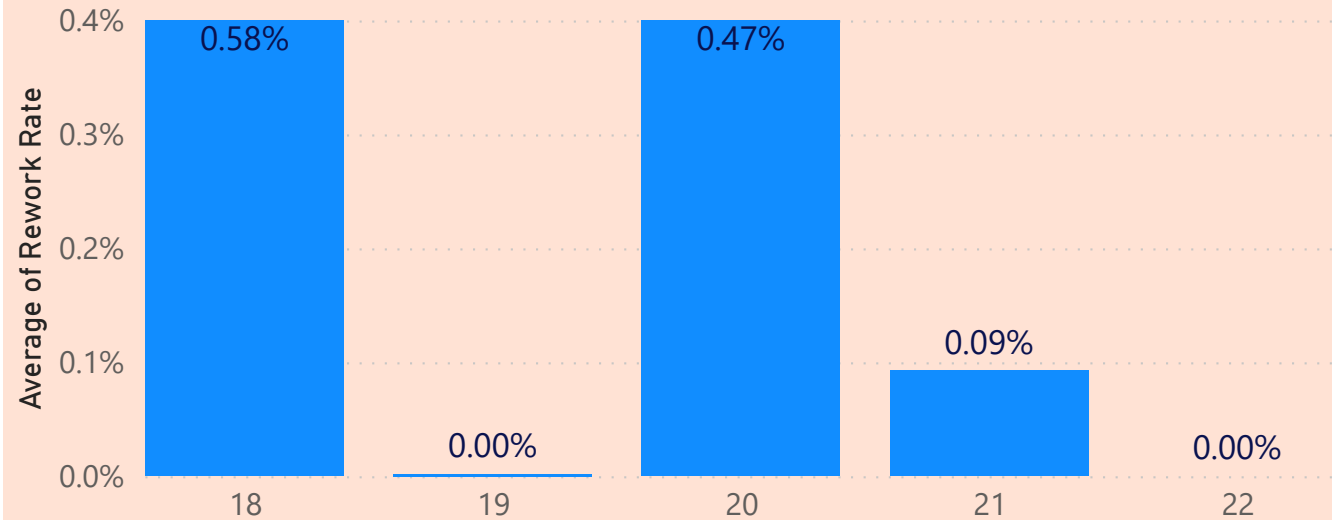# KPIs and charts of **Rework Rate** & **Scrap Rate** over the given time period, with LineID, TeamID and Date filters:

Average Rework Rate

0.32%

Average of Rework Rate by Day

Average Scrap Rate

0.30%

Average of Scrap Rate by Day

Date

- ☐ Select all
- ☑ Monday, 18 June 2018
- ☑ Tuesday, 19 June 2018
- ☑ Wednesday, 20 June 2018
- ☑ Thursday, 21 June 2018
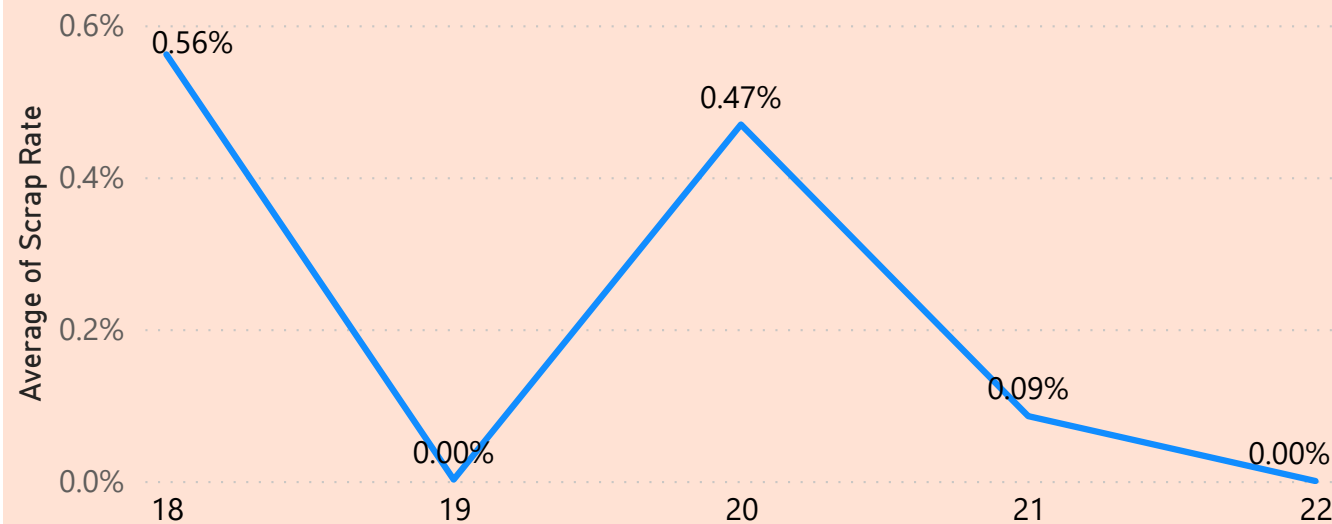- ☑ Friday, 22 June 2018

LineID

- ☐ 1
- ☑ 2
- ☐ 3

TeamID

- ☑ 1
- ☐ 2
- ☐ 3

KPI and chart of **Right First Time** over the given time period, with LineID, TeamID and Date filters:

Date ∨
- ■ Select all
- ■ Monday, 18 June 2018
- ■ Tuesday, 19 June 2018
- ■ Wednesday, 20 June 2018
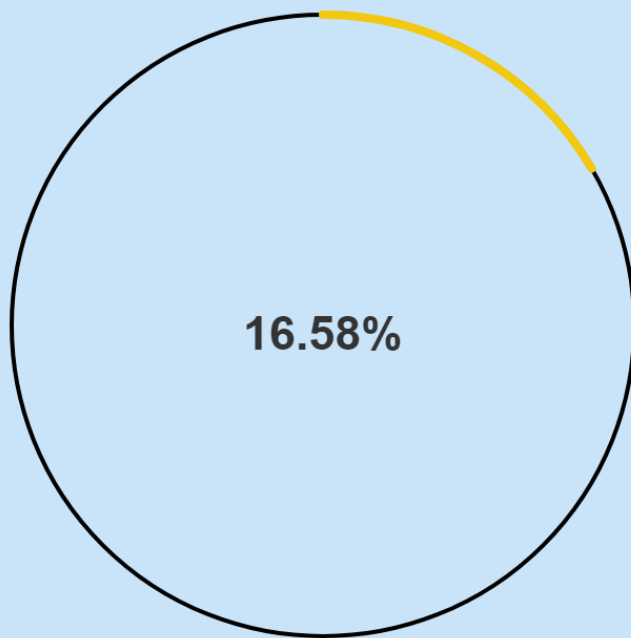- ■ Thursday, 21 June 2018
- ■ Friday, 22 June 2018

LineID ∨
- ☐ 1
- ■ 2
- ☐ 3

TeamID ∨
- ■ 1
- ☐ 2
- ☐ 3

Right First Time

16.58%

Average of Right First Time by Day

KPI and chart of **Machine Utilization** over the given time period, with Date, LineID and TeamIDfilters:

Date
- ■ Monday, 18 June 2018
- ■ Tuesday, 19 June 2018
- ■ Wednesday, 20 June 2018
- ■ Thursday, 21 June 2018
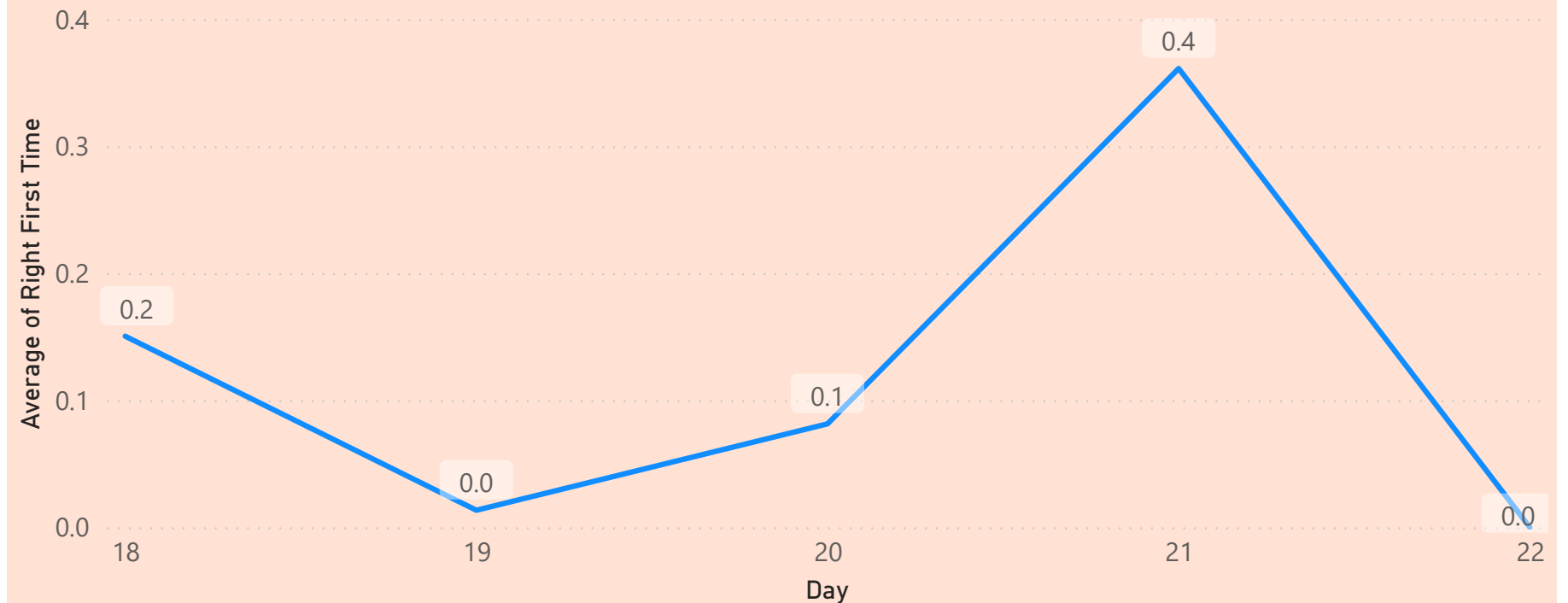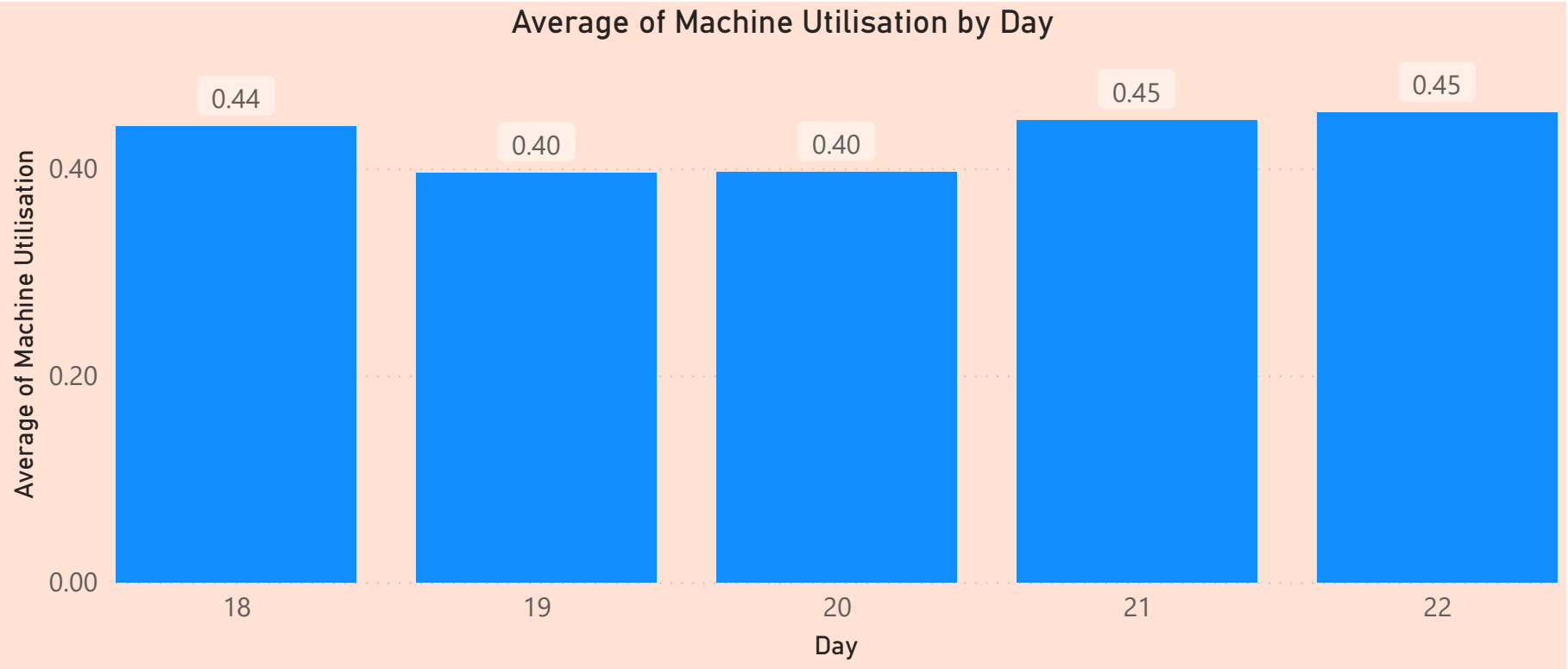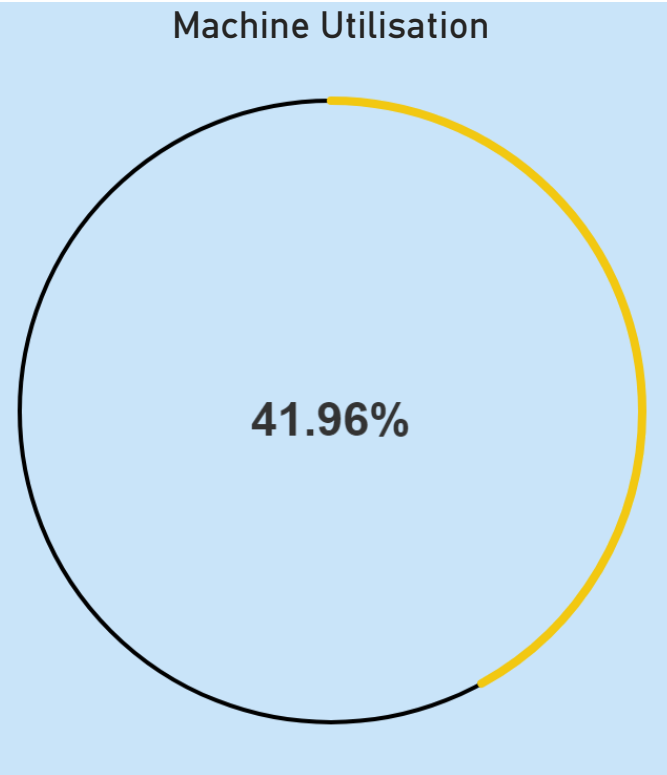- ■ Friday, 22 June 2018

LineID ⌄
- ☐ 1
- ■ 2
- ☐ 3

TeamID ⌄
- ■ 1
- ☐ 2
- ☐ 3

Machine Utilisation

41.96%

Average of Machine Utilisation by Day

Day	Average of Machine Utilisation
18	0.44
19	0.40
20	0.40
21	0.45
22	0.45

Total **Downtime minutes** & **Production pieces:**

Downtime (minutes)

497.75

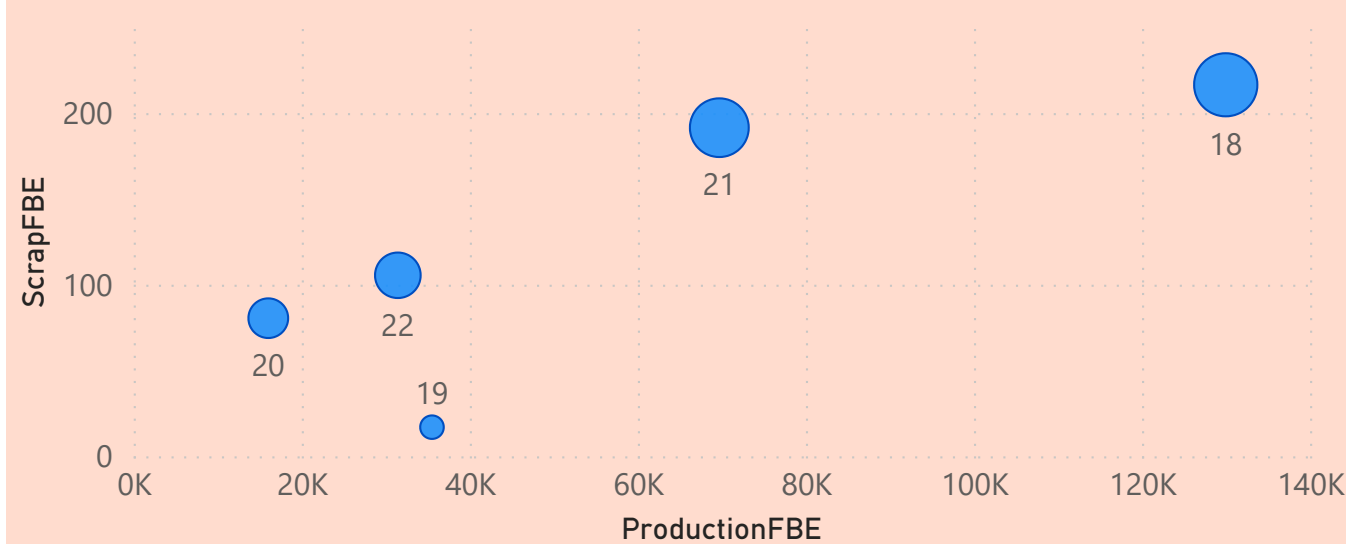Downtime (mins)

Production pieces (pcs)

170.27K

Count of Item

Correlation chart and coefficients between
(a) total **production** and **scrap pieces** & (b) total **production** and **rework pieces:**

0.82

ProductionFBE and ScrapFBE
correlation for Day

Correlation between Production and Scrap pieces

0.98

ProductionFBE and ReworkFBE
correlation for Day

Correlation between Production and Rework pieces

Date
- Select all
- Monday, 18 June 2018
- Tuesday, 19 June 2018
- Wednesday, 20 June 2018
- Thursday, 21 June 2018
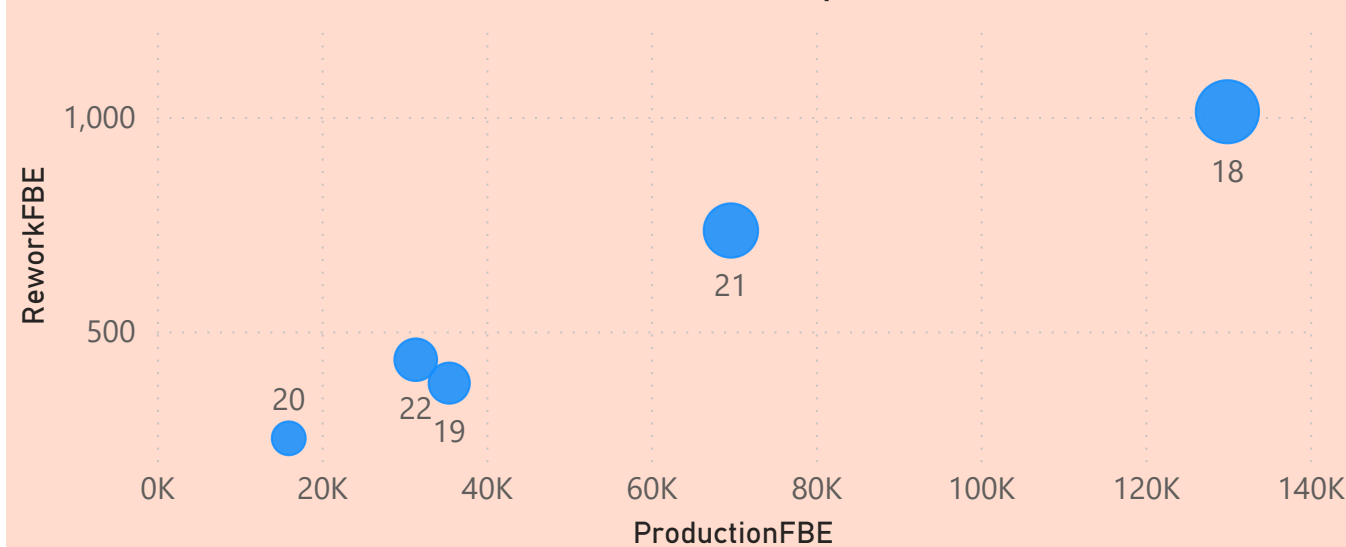- Friday, 22 June 2018

LineID
- [ ] 1
- [ ] 2
- [ ] 3

TeamID
- [ ] 1
- [ ] 2
- [ ] 3

Business Problem:

The automotive seating manufacturing company profits have been declining over time because of the steep increase in plant's operating costs.

How might we...:

How might we increase the profits of the company by reducing the plant's operating cost?

Recommendations:

Based on our preliminary findings, we recommend:

1. To investigate why there are high rework rates on Monday, Wednesday and Friday (0.24%, 0.33%,0.27%), compared to the average rework rate of 0.21%, and to reduce the rework rates for these days of the week.

2. To investigate and reduce the highest rework rate for Line 3 (0.34%), compared to Line 1 (0.08%) and Line 2 (0.22%).
Furthermore, machine utilisation for Line 3 (42.17%) is below the average machine utilisation of 43.06%.

3. To investigate why there is a high scrap rate on Monday (0.17%), compared to the average scrap rate of 0.11%, and to reduce the scrap rate for Monday.

4. To tag Team IDs to the untagged staffs.

5. To tag the Shift IDs to the respective staffs.