

# Survey F1 Data Visualization

Improving the Grand Prix experience  
for F1 viewers at home

S8 Graduation FHICT

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By Jordi Franssen

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# Introduction

October 9th, a focus group discussion is planned to define a concept for this project. It would be useful to include target audience interests with this discussion. Therefore, I released a survey with the goal to identify target audience interests.

In this document, I have summarized the survey questions and their respective responses and drew conclusions regarding topics to be discussed during the focus group discussion. These conclusions will be visualized in personas, empathy maps and customer journeys in the user-centered-design analysis.

## Survey target

This survey will be distributed towards RacingNews365's target audience. This target audience is defined in the target audience analysis. In general, this audience is primarily male, with a slightly higher age of 35 - 65+ and has interests in Formula 1.

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# Survey motivation

During previously conducted research, I found that there are two directions this project can go. Based on the fact that the data sources that are available are historical data or live data, the project will provide a solution during the race(live) or whenever the user feels like using the tool(historical), or both. With this survey, I hope to find out what the target audience finds the most interesting to have visualized in 3D. A thing that will also shape the general outcome of the project is what data is exactly visualized. Is this driver statistics, cars position, pit stops or anything else?

This survey will contain a few topics where interesting insights can be found. These are:

- Current viewing habits. It's interesting to see how the target audience experiences F1 right now. How do they watch F1, do they watch it live or do they watch a replay and do they use other sources other than the general broadcast to experience F1?
- Data visualization. Does the target audience want live data or historical data to be visualized and what data exactly?
- Interactivity. Would the target audience like the ability to control what data they're seeing and would they like control over any 3D visualization like zoom, rotation, cameras etc.
- Additional features. Would the target audience be interested in social features like comments on data? Or would gamification be interesting to include?
- Monetization. Is the target audience willing to pay extra to have access to this exclusive tool?

Demographic information is not included in this survey as these insights are already provided by Google Analytics, however a few simple questions like gender and age will be asked if the proposed concept doesn't match with the current target audience.

# Survey questions and setup

This survey will be made with Google Forms. Two versions will be made, an English version and a Dutch version.

[Google Forms](#)

## Context and Introduction

Completion time: <5 minutes.

First of all, big thanks for your time to complete this survey! My name is Jordi, I'm a student from Fontys University and I'm currently doing my graduation internship at TDE in Eindhoven, Strijp-S.

My assignment is all about Formula 1. This sport generates vast amounts of data from timing, velocities, to tyre information and even drivers' heartbeats. But, this rich data isn't easily accessible or engaging for fans. My mission? Make it fun, interactive, and captivating using 3D visuals! I hope to accomplish this by making a 3D visualization tool for RacingNews365.

## Demographics

Just to check if you're part of the target audience.

1. Age:
2. Gender:
3. For how many years have you been following Formula 1?

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## Current F1 experience

First we need to know how you're currently experiencing Formula 1 (F1).

1. How are you currently involved with F1? Select what applies for you.
  - I watch the live general broadcast but don't have to see every race.
  - I watch the live general broadcast of every race.
  - I follow F1 on social media.
  - I regularly read news articles and blogs about F1.
  - I attend live F1 races.
  - I participate in F1 fan clubs or online forums.
  - Other
2. Which device do you primarily use to watch F1? Select what applies for you
  - TV (ViaPlay)
  - F1TV app
  - Other
3. Do you ever replay a race because you missed the live broadcast?
  - Never
  - Once or twice a season
  - Several times a season
  - I almost replay every race
4. Do you use a second screen like your mobile phone or tablet next to the **live** F1 broadcast on TV to supplement your F1 viewing experience (visit blogs or social media about F1 **during a race**)?
5. Do you use radio or podcasts to experience a live F1 race?

## Data visualization

1. How important would live 3D data visualizations be for you during a race?
  - Not important at all. I prefer to only watch the live broadcast.
  - Would be interesting to check a couple of times, but the live broadcast would be most important.
  - Very interesting. I would like to continuously follow 3D visualizations during the live broadcast.
2. Would you be interested in accessing historical F1 3D visualizations at your convenience?
  - Not interested at all
  - Might check occasionally
  - Definitely interested.
3. Do you think you'd find it interesting to compare historical 3D visualizations with live 3D visualizations during an F1 race?
  - Not interested at all
  - Might check occasionally
  - Definitely interested

## Interactivity

1. Would you like to be able to control the 3D visualization? I.e. change camera's, camera direction, zoom etc.?
2. On what type of device would you use this tool? I.e phone, tablet, laptop, desktop, smart TV, VR headset.
3. How fast is your internet speed at home?
  - Fast enough to load 4k content instantly from streaming services like YouTube and Netflix.
  - It works fine. Downloading large files takes a bit long and Netflix and YouTube don't load instantly.

- Quite slow. Sending emails and visiting websites works fine, but watching Netflix and YouTube at the highest quality isn't always possible. Downloading large files takes ages.

## Additional features

1. Would you like to have social features next to the 3D visualizations? I.e. comment on specific races. If yes, can you give suggestions and would you use this during the race, after the race or at any time?
2. Do you think gamification would be interesting to include? I.e predicting pit stops, fastest laps or racing outcomes and compare your predictions with others.

## Monetization

1. Would a monetization model be acceptable for you? If so, what would you prefer?
  - Monthly subscription
  - One-time purchase
  - ads-supported version
  - freemium model (some features free, others behind a paywall)

## Feedback and suggestions

1. Are there any other sports or events where you'd like to see similar 3D data visualization tools applied?
2. Do you use any other tool for F1 data, and what do you like or dislike about this tool?
3. Do you have any general suggestions for this concept?



## Thank you note

Thank you for your time! Your response will be analyzed and used for research on this concept. Hopefully you'll be able to see the end product on the RacingNews365 website soon!

# Survey test

Before officially releasing the survey, it's always clever to test the survey with others to see if you've missed anything important. I shared the survey with Joep and John and got some interesting feedback.

The question of which device users use to watch F1 should be multiple select instead of multiple choice. People can use multiple devices to watch F1. Also the question for social functions like commenting was a bit far fetched, so I removed that question. Some questions were quite technical for the average F1 viewer, so I reformulated some questions so everyone understands what's being asked. The title now sounds more exciting and I added an image and a video to give people a better understanding of 3D visualizations within Formula 1.

# Results and Feedback

In total, the survey consists of 19 questions. The results are presented below and per subject is concluded what this means for the project.

## Demographics

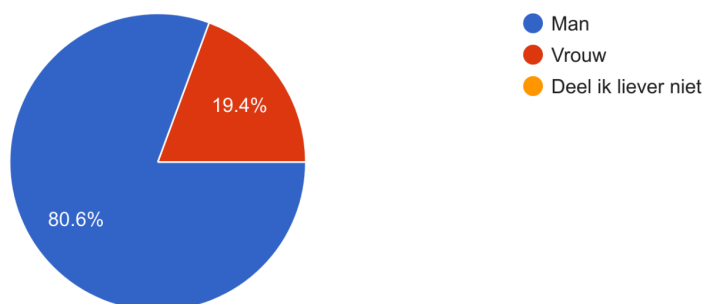
When were you born?

- Answers on this question vary from 1997 to 1981. However, most people are born between 1980 and 1990. This data matches with the data from Google Analytics.

What is your gender?

Wat is je geslacht?

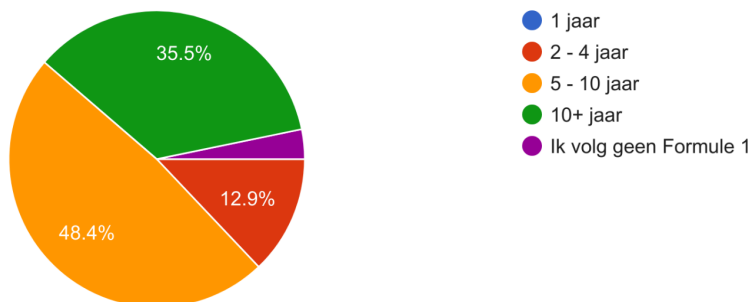
31 responses



For how many years have you been following Formula 1?

Hoe lang volg je al Formule 1?

31 responses



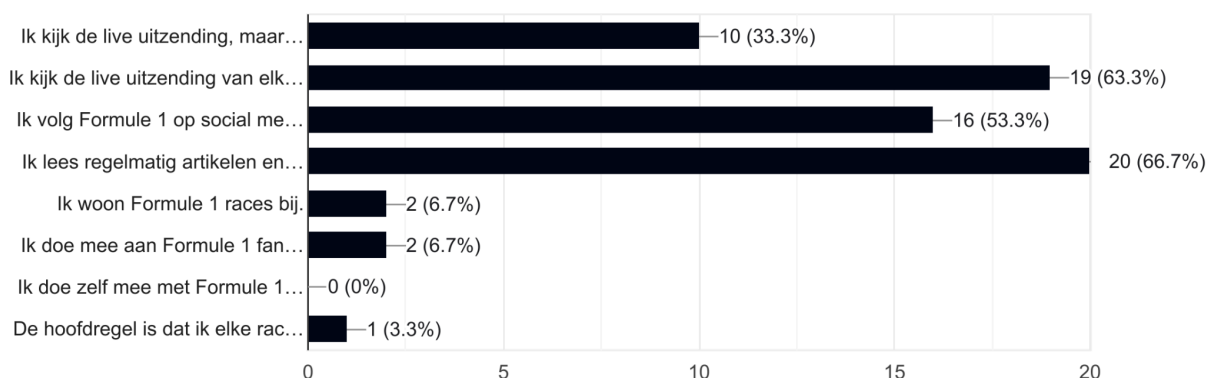
The results of the demographic part of the survey proves that the results of this survey comply with the target audience of RacingNews based on Google Analytics.

## The current F1 experience

How are you currently involved with Formula 1?

Hoe ben je momenteel betrokken met Formule 1?

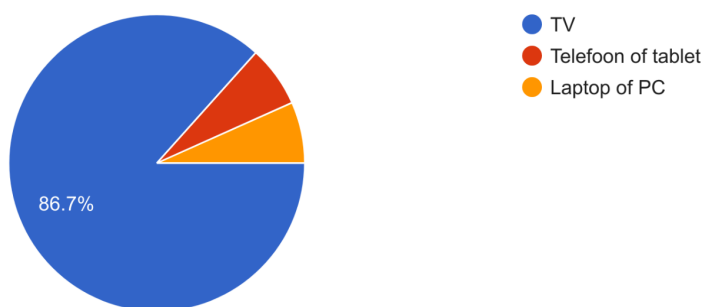
30 responses



Which device do you use to watch Formula 1?

Welk apparaat gebruik je voornamelijk om een Formule 1 race te kijken?

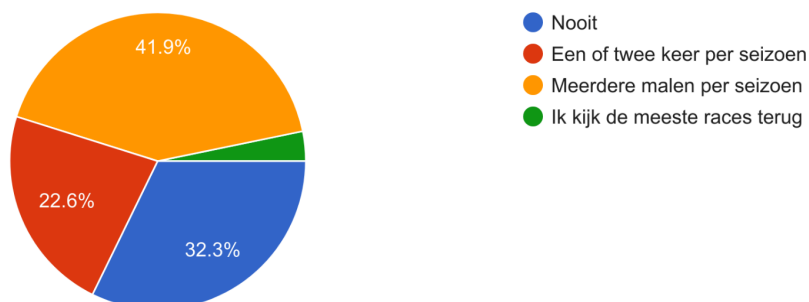
30 responses



Do you ever replay a race because you missed the live broadcast?

Kijk je ooit een race terug omdat je de live uitzending hebt gemist?

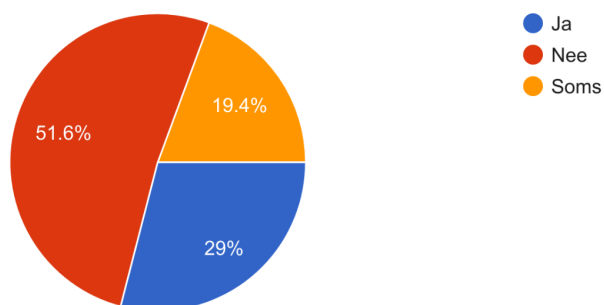
31 responses



Do you use a second screen like your phone or tablet to supplement your F1 viewing experience?

Gebruik je een tweede scherm zoals je telefoon of tablet naast de live Formule 1 uitzending om je kijkers ervaring aan te vullen (voor het bezoeken van social media over Formule 1 tijdens de race)?

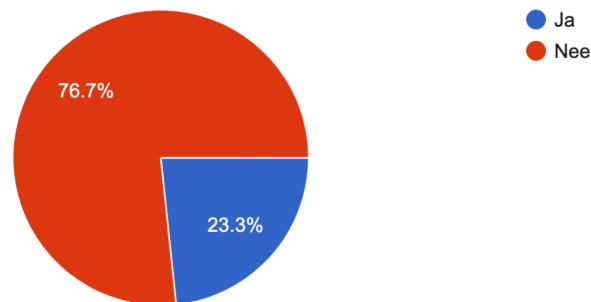
31 responses



Do you listen to radio or podcasts to follow an F1 race?

Luister je ooit naar radio of podcasts om een live Formule 1 race mee te maken?

30 responses



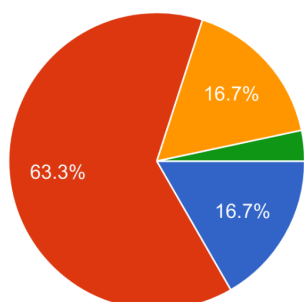
These results show that most people follow Formula 1 by watching the live races on TV. It's also interesting to notice that only a few people replay an entire Formula 1 race. This means that providing 3D visualizations during a replay of the race isn't interesting to elaborate upon. Most people don't use their phones or tablets for other F1 related usecases during the race. This is good news as this means that users have their phone available during the race. Also, no one listens to radio or podcasts to follow a live Formula 1 race. This means that the live broadcast will always provide the main visual information for the users and that replacing this with 3D visuals alongside a podcast or radio is useless.

## Data visualisation

How important would live 3D data visualizations be for you during a race?

Hoe interessant zou je live 3D visualisaties vinden tijdens een race?

30 responses

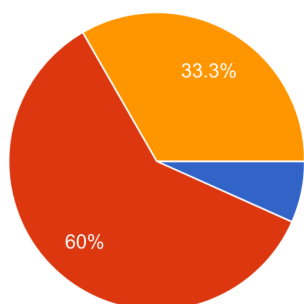


- Helemaal niet interessant, ik kijk liever enkel de live uitzending.
- Zou interessant zijn om af en toe te bekijken, maar de live uitzending is het belangrijkste.
- Heel interessant. Ik zou graag continu 3D visualisaties willen volgen tijdens de live uitzending.
- Ik kijk liever de live uitzending. Visualisaties als deze zijn leuk achter...

Would you be interested in accessing historical Formula 1 3D visualizations at your convenience?

Zou je het interessant vinden om 3D visualisaties te kunnen bekijken van een eerdere race wanneer het jou uitkomt?

30 responses



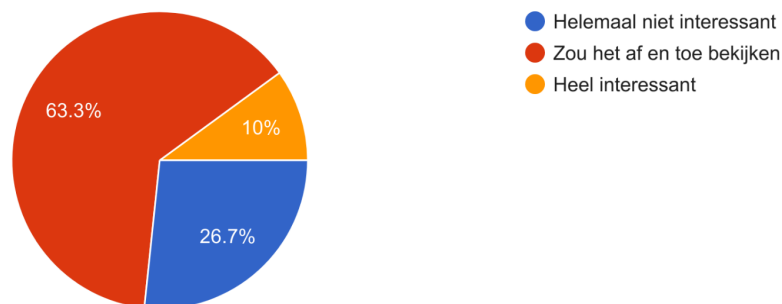
- Helemaal niet interessant
- Zou het af en toe bekijken
- Heel interessant



Would you find it interesting to compare historical 3D visualizations with live 3D visualizations during a race?

Zou je het interessant vinden om 3D visualisaties van een eerdere race te vergelijken met live 3D visualisaties tijdens een race?

30 responses



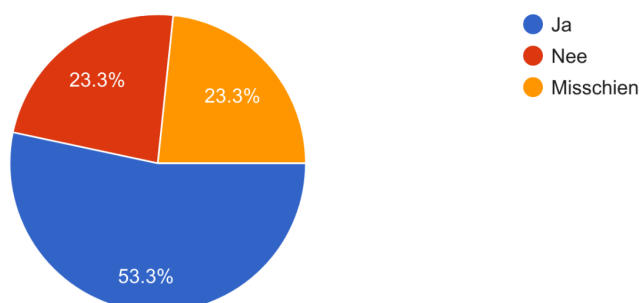
Most people find the general broadcast most important so a 3D data visualization would be a secondary source of information for the users. Also not many people say that they'll continuously follow the tool next to a live broadcast, but will check it once sometimes during the race. Also almost everyone indicates that they'd check historical F1 3D data visualizations once in a while or find it very interesting. However, a lot more people indicate that they wouldn't find a comparison of historical F1 data with a live race interesting, or would check it once in a while. This shows that a live comparison between live data and historical data during a race isn't as important.

## Interactivity

Would you like to control the 3D visualizations? I.e. change cameras, control camera direction, zoom, etc..

Zou je graag controle willen hebben over de 3D visualisaties? Bijv. wisselen tussen camera's, veranderen van kijkrichting, zoom, etc..

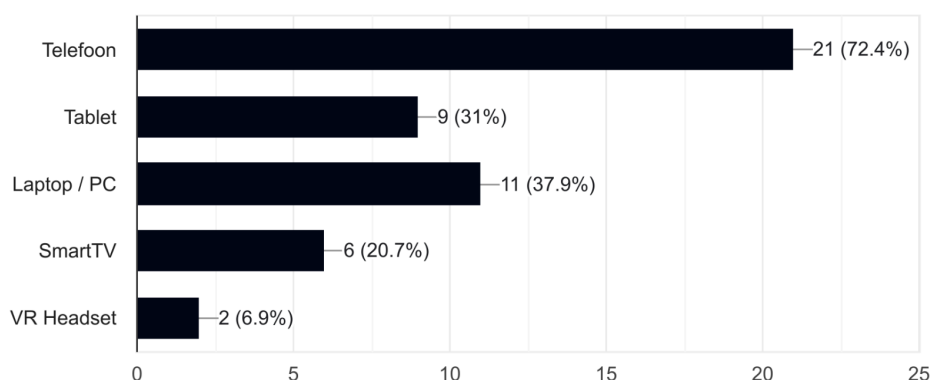
30 responses



On what type of device would you use this 3D tool?

Op wat voor soort apparaat zou je deze tool gebruiken?

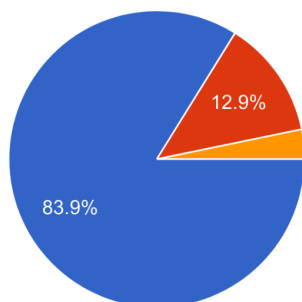
29 responses



## How fast is your internet speed at home?

Hoe snel is je internet thuis?

31 responses



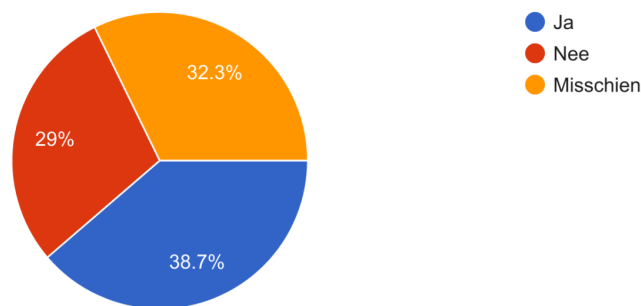
- Snel genoeg om 4K content onmiddellijk te laden van streaming services zoals YouTube en Netflix.
- Werkt prima. Grote bestanden downloaden duurt wat langer en Netflix en YouTube laden niet onmiddellijk.
- Best traag. Emails verzenden en websites bezoeken werkt prima, maar Netflix en YouTube kan ik niet altijd in de hoogste kwaliteit bekijken en grote bestanden downloaden duurt een eeu...

A lot of users would find controls for the 3D visuals interesting. Also people will use this tool on a phone, tablet or pc. This means that a web solution will work for this project as this will work on all of these devices. Fortunately everyone considers their internet to be relatively fast. This gives an indication of how detailed the 3D models can be as these files can be quite large.

## Additional features

Do you think gamification would be interesting to include? I.e. predict pit stops, fastest laps or racing outcomes and compare your predictions with others. Or maybe a quiz about the history of Formula 1?

Denk je dat het interessant is om spelelementen toe te voegen? Bijv. voorspellen van pitstops, snelste rondetijden of eindresultaten om deze te v... van een quiz over de geschiedenis van Formule 1?  
31 responses



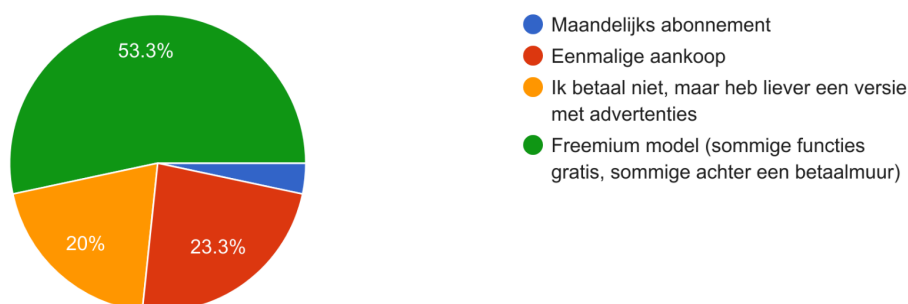
50% indicate that they'd like gamification included. However the other 50% indicate that they might think it's interesting or don't find it interesting at all. This gives an indication of the importance of including gamification in the tool.

## Monetization

Would you be prepared to pay? If so, what would be your preference?

Zou je er eventueel voor willen betalen? Zo ja, wat zou je voorkeur hebben?

30 responses



In case of monetization, a freemium model would be most interesting.

## Feedback and suggestions

Many people indicated that they'd find a similar tool interesting for soccer or cycle racing. This gives an indication for potential further development of the tool for other sports.

# Conclusion

Thanks to this survey we have a great input for the focus group. We now know that the 3D visualization tool will be a secondary source of information for people who follow Formula 1 and that users are primarily watching TV to follow an F1 race. Also, people don't make much use of second screens during a live race while they're watching the TV. This means that users have their mobile phones available for potential 3D visualizations. Next, users replay a race quite often. Which makes making 3D visualizations during a replay an option to consider.

Users find historical data more interesting than live timing data. But there's not much difference. Making a tool for comparing live timing data with historical data is considered to be not that interesting, but it might be interesting to add at a later stage. In addition, the tool will provide the ability to control the 3D visualizations with zoom, rotation etc and people have relatively fast internet so we don't have to be extremely careful with larger 3D models. Gamification will not be important for the project, however it might be interesting for further development at a later stage and users prefer a freemium model as a payment method.

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# Summary

I released a survey with the goal to identify target audience interests and preferences. In earlier research, I found that this project can play a role in a historical context or a live context. I want to know what the user finds more important for example. Other things that I would like to know are current viewing habits, preferences about data visualization, possibilities of interactivity, potential additional features and what type of monetization to use.

The survey was completed by colleagues of TDE and participants of a WhatsApp group about Formula 1. In total, there are 32 replies.

We now know that the 3D visualization tool will be a secondary source of information for people who follow Formula 1 and that users are primarily watching TV to follow an F1 race. Also, people don't make much use of second screens during a live race while they're watching the TV. This means that users have their mobile phones available for potential 3D visualizations. Next, users replay a race quite often. Which makes making 3D visualizations during a replay an option to consider.

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# Learning Outcome Clarification

- Learning Outcome 1: Professional Duties
- Learning Outcome 2: Situation-Orientation
- Learning Outcome 4: Investigative Problem Solving
- Learning Outcome 6: Targeted Interaction

This deliverable is a professional duty on a bachelor level in the activities of Analysis and Advise as I analyzed the interests and values of the target audience and advised on how these interests and values are important for the concept. This is in line with IT-area User Interaction. Therefore, Learning Outcome 1: Professional Duties applies.

This deliverable is relevant and valuable as it has a contribution to the ideation of the concept. I also worked in a methodological and structured way. Therefore, Learning Outcome 2: Situation-Orientation applies.

This deliverable is a research method on [ictresearchmethods.nl](https://ictresearchmethods.nl). I used the results from this research as an input for the focus group discussion. Therefore, Learning Outcome 4: Investigative Problem Solving applies.

This survey was sent to colleagues and Formula 1 enthusiasts, so I communicated appropriately to make sure the survey would be completed by the right audience and achieve the desired impact. Therefore, Learning Outcome 6: Targeted Interaction applies.