20 23 Edition

Live FM: FAN MONITOR

An analysis of attitudes and behaviors of music fans in Germany towards technology innovation and sustainable consumption.

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LIVE FM: FAN MONITOR is an applied research project initiated in 2020, funded by IU University of Applied Sciences through the "IU Kompass". Its mission is to develop and share research findings in an accessible format, and contribute to discussions on timely issues in the entertainment sector.

LIVEINNOVATION.ORG is an independent academic initiative founded by Francisco Tigre moura in 2017. It is a platform to support and inspire students through educational content. It is also a way to connect with scholars and industry stakeholders. The main areas of interest involve marketing, consumer behaviour and sustainable consumption; artificial creativity; and technology experiences. All mainly applied to contexts of live hedonic experiences.

LIVEINNOVATION.ORG

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ACADEMIC TEAM

Germany

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PREVIOUS EDITIONS

2022 Edition — Live FM: FAN MONITOR

Technology innovation
- Facial recognition technologies
- Artificial intelligence
- Virtual reality

Sustainable consumption
- Own behavior and attitudes
- Communication
- Perception of events

2021 Edition — Live FM: FAN MONITOR

Technology innovation
- Facial recognition
- Artificial intelligence
- Virtual reality

Environment and society
- Sustainability
- Climate change
- Politics

Attendance and tickets
- Concert attendance
- Ticket purchase
- Risk perception

Marketing and consumption
- Streaming
- Vinyl products

2020 Edition — Live FM: FAN MONITOR

Covid 19 and attendance
- Risk perception
- Experience expectations

Purchase behaviour
- Ticket purchase
- Ticket cancellation
- Branding

Technology innovation
- Virtual reality
- Artificial intelligence
- Instagram lives
- Future innovations

20 23 Live FM: FAN MONITOR

Edition

WELCOME!

2023 marked another dynamic chapter for the live entertainment sector, bringing forth a wave of extraordinary possibilities and unforeseen challenges. Especially as a result of artificial creativity.

Advancements in automation and artificial creativity continued to reshape the music industry, with the wide adoption of innovative tools at a remarkable pace. The advances made in enhancing human creativity were balanced against the ongoing debates surrounding the application of facial recognition technology at live events. This year's report continues to discuss these topics and shed light on the changes that the live music sector has been facing.

In view of this fast moving reality, the 2023 edition of the Fan Monitor applied the same measurements as the 2022 edition, with the aim of allowing for longitudinal insights in future publications. More than ever before, it is crucial to understand the magnitude and direction of these changes.

Also, 2023 was the final year of funding for the project. So it is still uncertain whether there will be a 2024 edition of the Live FM: Fan Monitor. In case you wish to collaborate or fund it, please contact us.

But for now I hope you will find the report easy to follow, insightful and relevant. Enjoy!

Cheers,

Francisco Tigre Moura

EXECUTIVE SUMMARY

2023 Edition

The 2023 edition of the Live FM: Fan Monitor revealed important findings regarding the perceptions of music fans in Germany and reinforced findings from last year's edition.

Technology & innovation.

Regarding artificial intelligence (AI), respondents remain somewhat positive towards its implementation in music. However, educational level, and interest in technology innovation, are strong predictors of acceptance.

Virtual reality (VR) is still perceived as a cutting-edge technology, and ownership and used increased. The interest in consuming music related content in VR also remains rather low. Males remain as main adopters.

Facial recognition technologies (FRT) and personal privacy remains a very important issue. Acceptance of its use during hedonic events remains very negative. Overall, fans still demand venues to inform if it is being used.

Sustainable consumption.

Attitude towards sustainability and climate change remains very positive. However, it is not clearly reflected in actual sustainable consumption behavior during concerts. In general, respondents reported having made mostly minor changes in consumption behaviors. Male respondents reported much more often sustainable behavior when compared to 2022.

As in 2022, most common sustainable consumption behaviours were mobility, litter disposal, electronic tickets and plastic reduction. More advanced practices, such as carbon offsetting for flights or purchase of circular merchandise, were considerably less common.

Finally, respondents still believe artists can influence fans to behave sustainably and that it is their role to do so. Once again, educational level was an important factor to predict the acceptance of musicians in raising awareness to sustainability related issues.

METHODOLOGY
2023 Edition

The data here presented was collected online and offline in Germany during the months of August and November 2023. The measurements were defined through discussions with scholars and industry stakeholders. The population of the study was defined as active music concert goers, based on their frequency of attendance in 2022.

For the data collection, non-probability sampling techniques were applied. In specific, convenience, snowball and voluntary response sampling methods. The survey was distributed directly and indirectly on university mailing-lists, shared on social media platforms of the institutions and of the researchers, to industry stakeholders and on LiveInnovation.org. Moreover, data was also gathered through Talk Online Panel, for voluntary response sampling.

The project is funded by IU University of Applied Sciences, through the "IU Kompass". Gift vouchers were raffled to motivate participation. A total of 1,107 respondents answered the survey. After data screening, a final valid sample of 1,008 respondents over 18 years old was used for the analysis. All analysis were conducted on SPSS V25 and tests included descriptive statistics, cross-tabulation, Chi-Square, One-way ANOVA, correlation and independent Samples t-Test.

LIMITATIONS & NOTES FOR INTERPRETATION

First, attitude and intentions represent only an indication of future behavior. Often, such indications are not reflected in actal behavior. Also, the application of non-probability sampling techniques and the recruitment of participants through online panels may also represent a limitations of the study. Finally, findings are not representative of the German population, and thus, results cannot be generalized.

SAMPLE

2023 Edition

Germany

1,008

Valid respondents residing in **Germany**

Diverse
0.2%

Male
52.2%

Female
47.5%

AGE
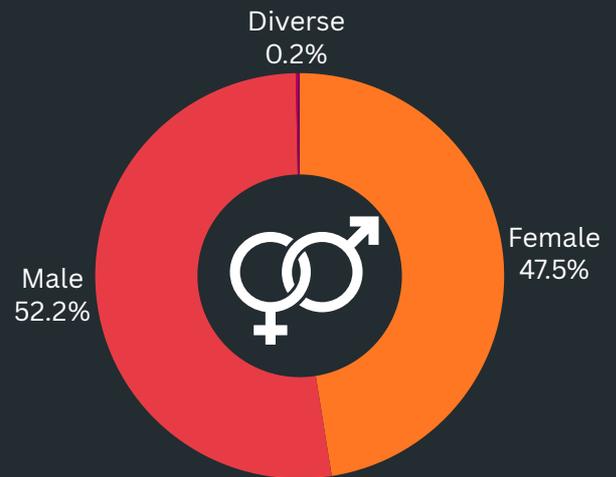
38.4%

respondents ranged between 18 and 34 years of age

38.8%

respondents ranged between 35 and 52 years of age

Up to high school — 33.4%
High school — 22.2%
Bachelor — 18.6%
Postgraduate — 21.7%
PhD — 2.6%

73%

of respondents attended **1-3** concerts in the last 12 months

6.8%

of respondents attended **7 or more** concerts in the last 12 months

SAMPLE

2023 Edition

Germany

Most Preferred Music Genres

Respondents could choose up to 3 music genres

59.6%
Pop / Dance

47.5% | 52%

Diverse < 1%

46.6%
Rock / Hard rock

65.0% | 34.7%

Diverse < 1%

33.2%
Rap/ Hip-Hop

48.8% | 50.2%

Diverse < 1%

30.1%
Electronic / Techno

59.2% | 39.8%

Diverse < 1%

29.7%
Classic / Instrumental

53.4% | 46.0%

Diverse < 1%

23.1%
Blues / Jazz

67.1% | 31.5%

Diverse < 1%

19.6%
Country / Folk

60.5% | 38.7%

Diverse < 1%

AGE

Further analysis revealed significant statistical associations between **age** and the following genres:
- Classical / instrumental ($p=.025$)
- Blues / Jazz ($p=.000$)
- Electronic / techno ($p=.000$)
- Rap / Hip-hop ($p=.000$)
- Rock / Hard rock ($p=.000$)

Further analysis revealed significant statistical associations between **educational level** and the following genres:
- Classical / instrumental ($p=.000$)
- Blues / Jazz ($p=.000$)
- Country / Folk ($p=.000$)
- Electronic / techno ($p=.002$)

TECHNOLOGY & INNOVATION

01   RATIONALE OF QUESTIONS

The 2023 edition of the monitor measured the exact same factors related to technology and innovation as the previous edition. They are described as follows:

- **Artificial intelligence (AI).** One of the many applications of AI in music is for the composition process of songs. Algorithms can identify patterns withing musical structures, and thus, create autonomously or in collaboration with humans, completely new songs. But does the use of AI make artists more creative? How familiar are fans with AI? Would it disappoint them to know their favourite artists is using AI to compose songs?

- **Virtual reality (VR).** Virtual reality has long enabled humans to experience fully immersive virtual experiences. In the case of the music industry, it could potentially represent an extraordinary new revenue stream. But how many people even have VR glasses? Do fans even consider VR a cutting-edge technology? Would they be interested in consuming music related products in VR?

- **Facial Recognition Technologies (FRT).** Facial recognition technologies have enabled not only the identification of humans based on facial traits, but also the understanding of emotions and even personality traits. In the context of live entertainment, it is often communicated as an important tool to enhance safety. But would fans enjoy the experience knowing that they can be easily identified? How much does their personal privacy matter to them? And would they feel safer?
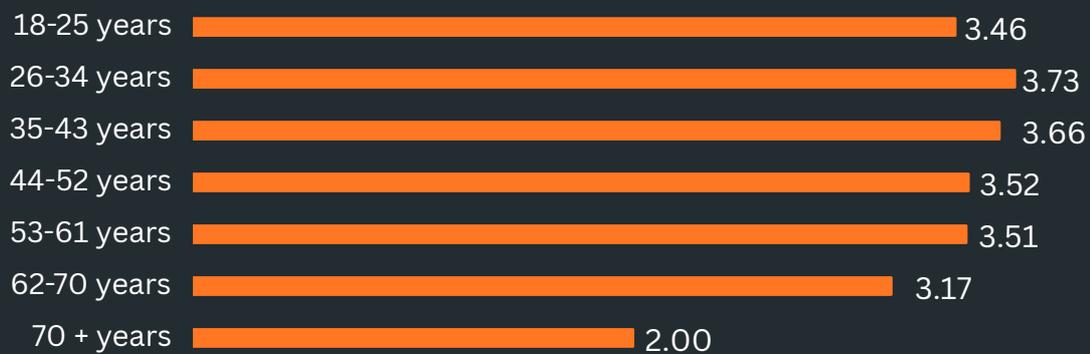
SAMPLE

2023 Edition

Germany

INTEREST IN TECHNOLOGY INNOVATION

Overall interest in technology and innovation.
Items measured in a 1 (Not at all interested) - 5 (Very high) Likert type scale.

Age group	Score
18-25 years	3.46
26-34 years	3.73
35-43 years	3.66
44-52 years	3.52
53-61 years	3.51
62-70 years	3.17
70 + years	2.00

56.7%

of respondents are **very** and **extremely** interested in technology and innovation.

4.8%

of respondents in are **not at all interested** in technology and the latest innovations.

No significant statistical differences were found when comparing the perceptions of respondents with different educational levels.

Male respondents (mean: 3.90) were significantly more interested than **female** respondents (mean: 3.22) in technology and innovation.

2023 Edition

01 TECHNOLOGY & INNOVATION

ARTIFICIAL INTELLIGENCE & CREATIVITY

RESULTS

01 ARTIFICIAL INTELLIGENCE & CREATIVITY

To which extent to you agree with the following statements?

Items measured in a 1 (Fully disagree) - 5 (Fully agree) Likert type scale.

Statement	Value
I am familiar with artificial intelligence	3.41
Artists using AI to compose music are creative	3.06
I feel positive about the use of AI in the music industry	3.03
Artists using AI to compose music are less skillfull	3.35
Music composed with AI is as meaningful as composed by humans	2.81

Further analysis revealed a **moderate positive correlation** between "interest in technology and innovation" and:
- Familiarty with AI (r=.506, p<.000)
- Artists using AI being creative (r=.353, p<.000)
- Music composed with AI is as meaningful as composed by humans (r=.376, p<.000)
- I feel positive about the use of AI in the music industry (r=.414, p<.000)

Male respondents (mean: 3.65) rated significantly higher in **familiarity with AI** than female respondents (mean: 3.13).

Further analysis revealed important significant differences between individuals with different educational backgorunds and how they felt towards the use of AI in music.

In short:
- **Level of education was positively related to the familiarity towards AI** (the higher the educational level, the higher the familiarity).

- **Level of education was negatively related to feeling positive about the use of AI in the music industry** (respondents with very low educational level felt more negative).

I feel positive about the use of AI in the music industry

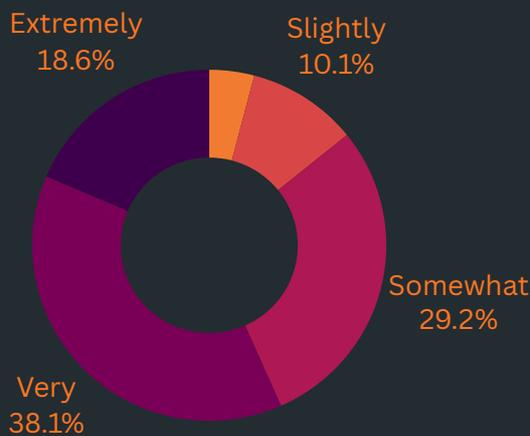Items measured in a 1 (Fully disagree) - 5 (Fully agree) Likert type scale.

High school	Bachelor degree	Postgraduate	PhD
2.88	3.38	3.34	3.05
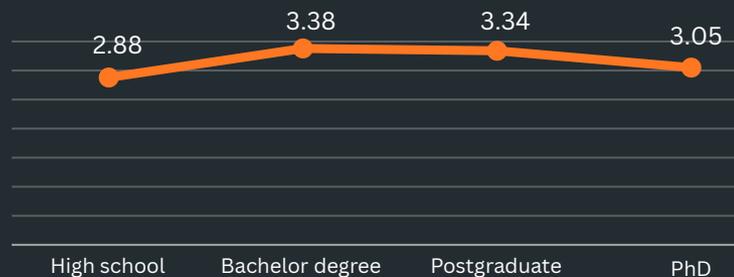
RESULTS

2023 Edition

01 ARTIFICIAL INTELLIGENCE & CREATIVITY

How aware are you that AI can compose original music without human input?

Extremely 18.6%
Slightly 10.1%
Somewhat 29.2%
Very 38.1%

How dissapointed would you feel if your favorite artist(s) used AI to compose original music?
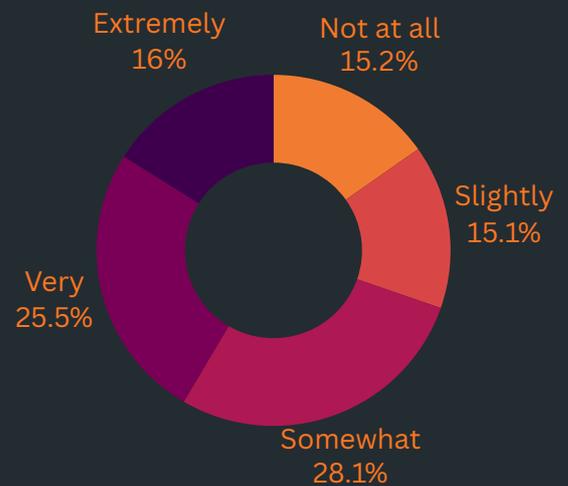
Extremely 16%
Not at all 15.2%
Slightly 15.1%
Very 25.5%
Somewhat 28.1%

Further analysis revealed a **moderate positive correlation** between "interest in technology and innovation" and:
- Being aware that AI can compose original music (r=.408, p<.000)

Further analysis revealed **no correlation** between "interest in technology and innovation" and:
- Feeling dissapointment if your favorite artist uses AI (r= -.088, p<.052)

No significant statistical differences were found when comparing respondents of different genders towards how they would feel if their favorite artist used AI for composing.

4.1%

of respondents in Germany are **not at all aware** that AI can compose original music without human input.

Male respondents (mean: 3.76) rated significantly higher in **awareness of AI in composing music** than female respondents (mean: 3.13).

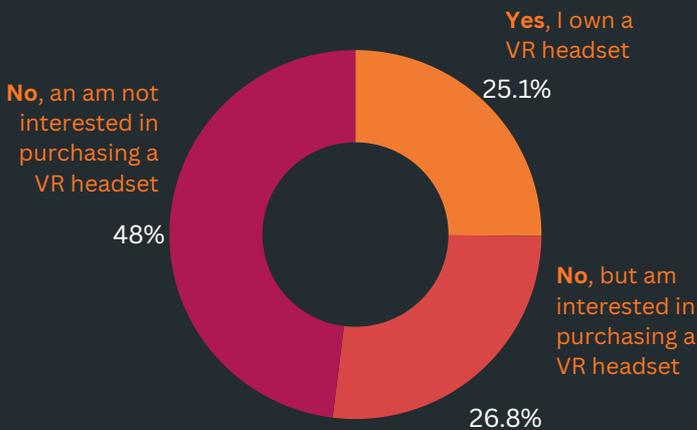# 01 | TECHNOLOGY & INNOVATION
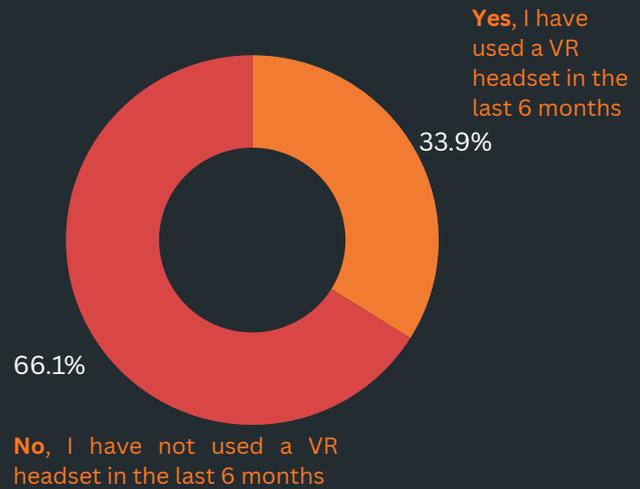
VIRTUAL REALITY EXPERIENCES

RESULTS

2023 Edition

01 VIRTUAL REALITY EXPERIENCES

Do you currently own VR googles?

Yes, I own a VR headset
25.1%

No, an am not interested in purchasing a VR headset
48%

No, but am interested in purchasing a VR headset
26.8%

Have you used a VR headset in the last 6 months?

Yes, I have used a VR headset in the last 6 months
33.9%

No, I have not used a VR headset in the last 6 months
66.1%

Who currently owns a VR headset?

71.3% Males and 28.7% Females

80.2%
are respondents ranged between 26 and 43 years of age

66.0%
are respondents hold a Bachelor or Postgraduate degree

Who has used a VR headset in the last 6 months?

67.6% Males, 31.9% Females

67.2%
are respondents ranged between 18 and 34 years of age

61.3%
are respondents hold a Bachelor or Postgraduate degree

RESULTS

2023 Edition

01 VIRTUAL REALITY EXPERIENCES

To which extent to you agree with the following statements?

Items measured in a 1 (Fully disagree) - 5 (Fully agree) Likert type scale.

- VR is a cutting-edge technology — 3.8ß
- I am interested in consuming music related content in VR — 3.13
- Virtual concerts can be almost as fun as in "real-life" — 2.69
- Paying for concerts in VR is a good way to spend my money — 2.65

70.4%

of respondents in Germany agree or fully agree that virtual reality is a **cutting-edge technology**.

Further analysis revealed a **small positive correlation** between "interest in technology and innovation" and:
- VR is a cutting-edge tech (r=.292, p<.000)

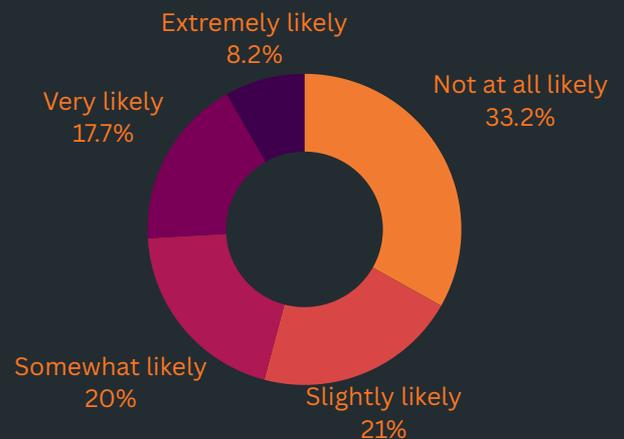Further analysis revealed a **moderate positive correlation** between "interest in technology and innovation" and:
- Being interested in consuming music related content in VR (r= -.461, p<.000)
- Virtual concerts can be almost as fun as in "real-life" (r=.419, p<.000)
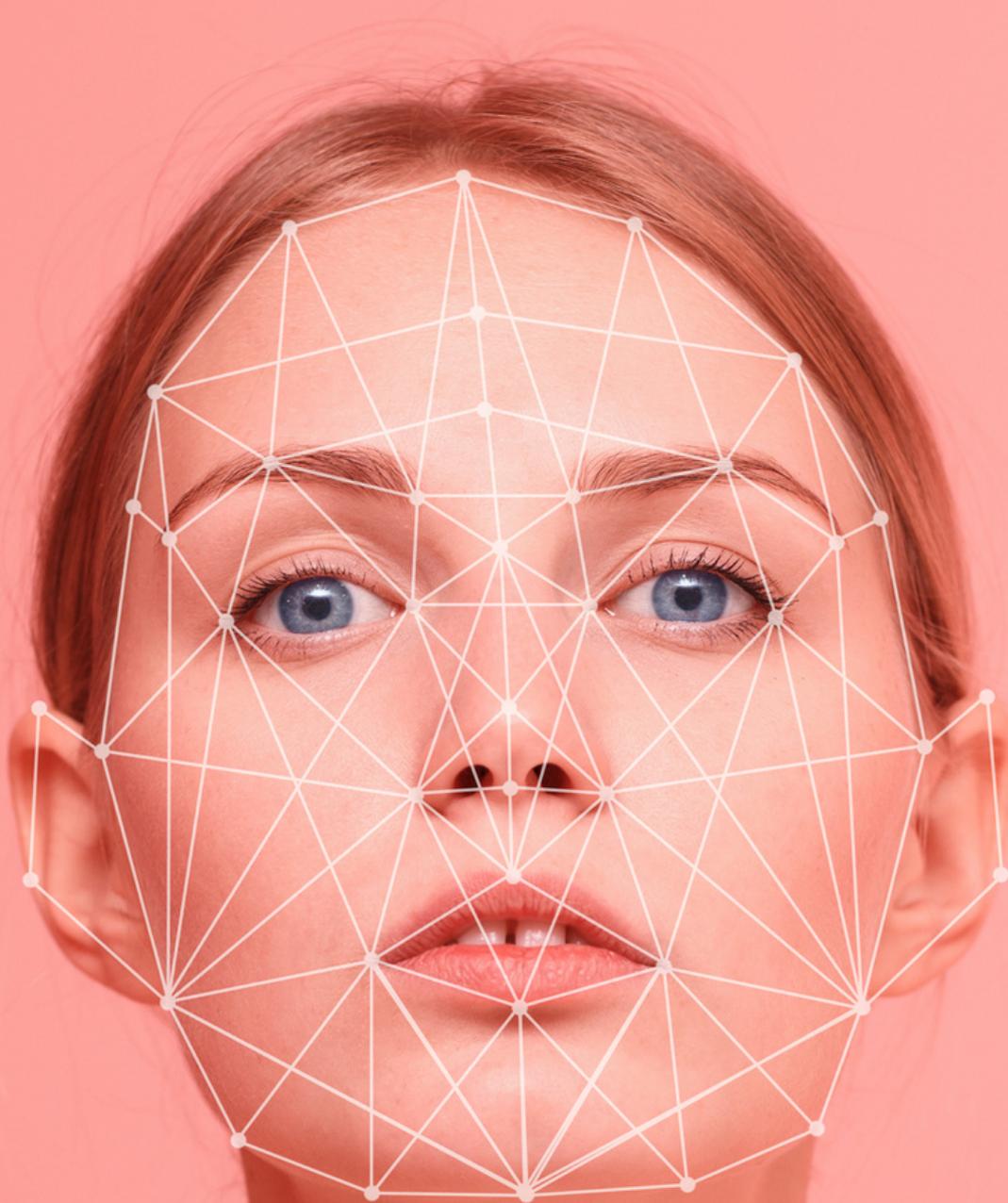- Paying for concerts in VR is a good way to spend my money (r=.404, p<.000)

Several significant statistical differences were found when comparing perceptions of respondents of different genders towards virtual reality. In short, male respondents responded more positively towards:
- Interested in consuming music VR content
- VR concerts can be as fun as real-life ones
- Paying for concerts in VR is a good way to spend my money
- Likely to use VR in the next 3 months

How likely is that you will use VR technology in the next 6 months?

- Extremely likely 8.2%
- Very likely 17.7%
- Not at all likely 33.2%
- Somewhat likely 20%
- Slightly likely 21%

01 TECHNOLOGY
& INNOVATION

FACIAL
RECOGNITION
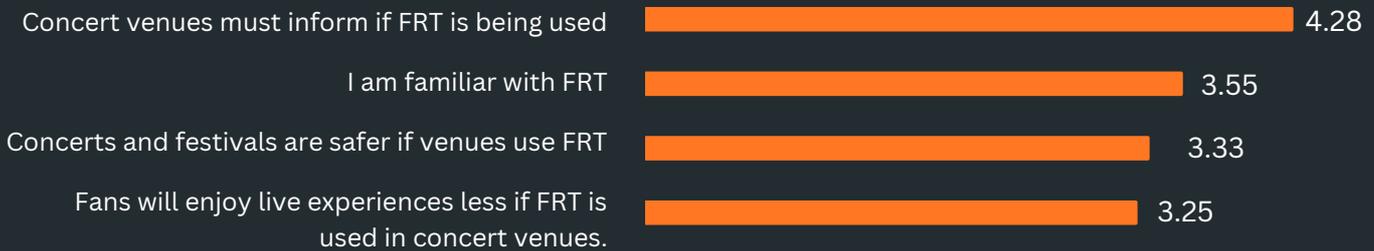TECHNOLOGIES

RESULTS

2023 Edition

01 FACIAL RECOGNITION TECHNOLOGIES

To which extent to you agree with the following statements?

Items measured in a 1 (Fully disagree) - 5 (Fully agree) Likert type scale.

Statement	Value
Concert venues must inform if FRT is being used	4.28
I am familiar with FRT	3.55
Concerts and festivals are safer if venues use FRT	3.33
Fans will enjoy live experiences less if FRT is used in concert venues.	3.25

83.6%

of respondents in Germany believe concert venues **must inform if FRT is being used during the event.**

Further analysis revealed a **moderate positive correlation** between "interest in technology and innovation" and:
- Familiarty with FRT (r=.491, p<.000)
- Concerts being safer is FRT is used (r=.310, p<.000)

22.5%

of respondents in Germany **disagree or fully disagree that venues will be safer when using FRT.**

Further analysis revealed a **small positive correlation** between "interest in technology and innovation" and:
- Fans enjoying less concerts with FRT (r=.163, p<.000)
- Venues must inform if FRT is used (r=.111, p<.000)

AGE Respondents **over 62 years of age** were significantly less familiar with FRT than all other age groups.

Male respondents (mean: 3.76) rated significantly higher **familiriarity with FRT** than female respondents (mean: 3.31).

46.6%

of respondents in Germany **agree or fully agree that fans will enjoy less if FRT is used ina venue.**

KEY INSIGHTS

01 TECHNOLOGY & INNOVATION

- **Artificial intelligence (AI).** In general, respondent's awareness of AI being used for music composition increased compared to 2022 and are rather accepting of it. Educational level, and especially interest in technology innovation, remain as the strongest factors for the acceptance of artificial creativity in music. Overall, implementation of AI in music must consider context and profile of the audience.to be the strongest factors for the acceptance of artificial creativity in music. Overall, implementation of AI in music must consider context and profile of the audience.

- **Virtual reality (VR).** VR remains being perceived as a cutting-edge technology, and the ownership and useage of VR devices has increased compared to 2022. The interest in consuming music content in VR also remains low. Virtual experiences are also perceived as not being as enjoyable as real-life ones, although gender differences were found. Thus, raises concerns towards the development of content for the metaverse. In sum, much further research is needed to enhance the adoption of VR in the music sector and outside of it.

- **Facial recognition technologies (FRT).** Results confirm the tendencies foundd last year. Personal privacy remains a very important issue and the perception towards FRT during hedonic experiences remains rather negative, and fans demand venues to inform if it is being used. It remains unclear whether it affects the enjoyment of live experiences. Age remains an important factor and senior respondents are less familiar. In sum, its implementation must be made with great care, with clear communication to fans.

SUSTAINABLE CONSUMPTION

02 **RATIONALE OF QUESTIONS.**

The 2023 edition of the monitor measured the exact same three factors related to sustainable consumptionas as the previous edition. They are described as follows:

- **Attitude towards sustainability and climate change**. The world is facing unprecedented environmental challenges. Sustainable production and consumption are pivotal steps in contributing to a healthy environment. But do fans even consider sustainability to be an important topic? To which extent to they consider climate change to be a threat to humankind? Do they think, for example, that the music industry should do more to promote sustainable behaviours?

- **Sustainable consumption behaviours during concerts**. Concerts represents a form of hedonic experiences. In such moments we often forget about the consequences of our behaviours, mostly due to the high affective responses. So how to fans evaluate their sustainable consumption behaviours during live concerts? Which specific sustainable behaviours have they mostly adopted? And how to they evaluate the actions taken by the industry to deliver sustainable live events?

- **Communicating sustainable consumption**. We are far from reaching the sustainable development goals. One of the main reasons is communication. In this context, artists can truly help. But how do fans feel when artists promote content related to climate change and sustainability? Do they find it risky for artists to be involved in such topics?

SAMPLE

2023 Edition

Germany

INTEREST IN SUSTAINABILITY AND CLIMATE CHANGE

Items measured in a 1 (Not at all interested) - 5 (Very high) Likert type scale.

Age	Score
18-25 years	3.58
26-34 years	3.54
35-43 years	3.73
44-52 years	3.36
53-61 years	3.44
62-70 years	3.42

57.3%

of respondents are **very** and **extremely** interested in sustainability and climate change.

5.8%

of respondents in are **not at all interested** in in sustainability and climate change.

80.8%

of respondents did **not** participated in any climate activism events in the last 12 months.

12.5%

of respondents participated in **1 or 2** climate activism events in the previous 12 months.

RESULTS

02 SUSTAINABLE CONSUMPTION

Climate change represents a serious threat to humankind.

Items measured in a 1 (Fully disagree) - 5 (Fully agree) Likert type scale.

18-25 years	26-34 years	35-43 years	44-52 years	53-61 years	62-70 years
4.11	3.88	3.99	3.92	3.97	4.11

74.8%

of respondents in Germany agree or fully agree that **climate change is a serious threat to humankind**.

13.5%

of respondents in Germany fully disagree or disagree that **climate change is a serious threat to humankind**.

My individual consumption behaviors have little impact on the environment.

Items measured in a 1 (Fully disagree) - 5 (Fully agree) Likert type scale.

|	
Up to high school	2.85
High school	3.02
Bachelor degree	3.00
Postgraduate	3.20
PhD	2.94
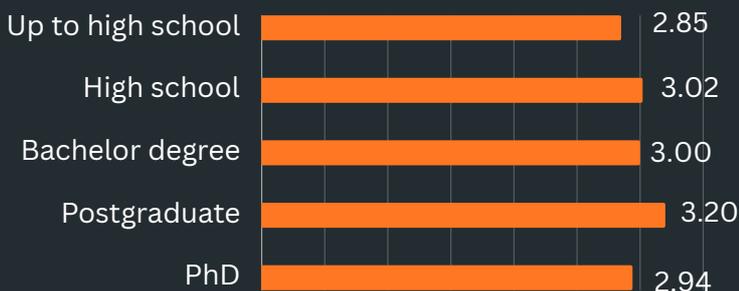
37.7%

of respondents in Germany agree or fully agree that **their consumption behaviors have little impact on the environment**.

RESULTS

2023 Edition

02 SUSTAINABLE CONSUMPTION

Which statement best describes how much you have changed your lifestyle to be more sustainable?

Do not want to make changes
13.8%

Major changes
16.4%

Plan to make changes
16.6%
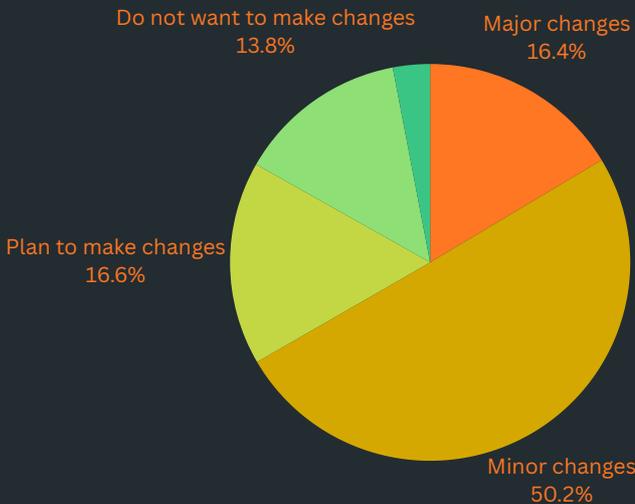
Minor changes
50.2%

Who has made major changes to be more sustainable?

63.5%
are male respondents

53.9%
are respondents aged between 26 and 43 years

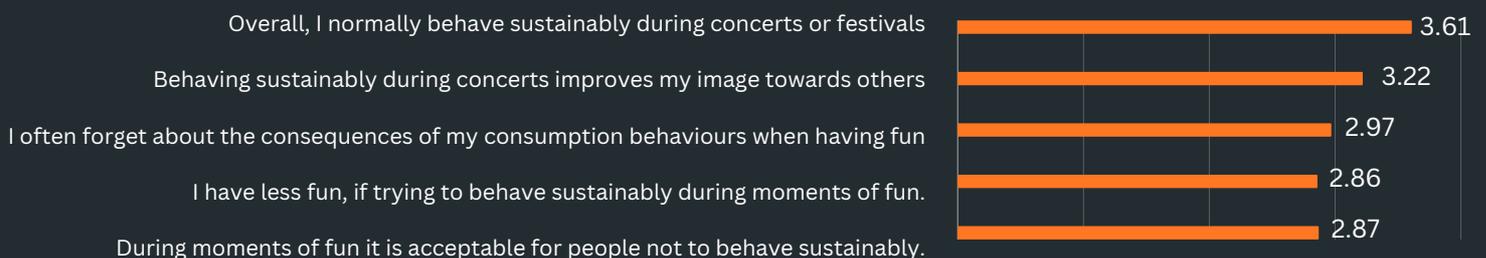**54.4%**
are respondents holding a Bachelor or Masters degree

02 SUSTAINABLE BEHAVIORS DURING CONCERTS

To which extent to you agree with the following statements?

Items measured in a 1 (Fully disagree) to 5 (Fully agree) Likert type scale.

Overall, I normally behave sustainably during concerts or festivals — 3.61

Behaving sustainably during concerts improves my image towards others — 3.22

I often forget about the consequences of my consumption behaviours when having fun — 2.97

I have less fun, if trying to behave sustainably during moments of fun. — 2.86

During moments of fun it is acceptable for people not to behave sustainably. — 2.87

RESULTS

02 SUSTAINABLE CONSUMPTION DURING CONCERTS

Regarding the last concert or festival you attended, which of these sustainable actions did you take?

Correctly disposed all personal litter

68.5%

48.4% | | 51.4%
Diverse < 1%

Used digital ticket instead of printed paper

57.8%

51.2% | | 48.8%
Diverse < 1%

Used a carpool or public transport

51.7%

50.2% | | 49.8%
Diverse < 1%

Used a reusable drink bottle

46.6%

48.0% | | 51.7%
Diverse < 1%

Read the environmental policies of the event

21.0%

63.4% | | 35.8%
Diverse < 1%

Ordered mostly plant based food

18.2%

54.3% | | 45.7%
Diverse < 1%

Purchased sustainable merchandise

13.0%

67.9% | | 31.0%
Diverse < 1%

Tried to influence sustainable behaviors in others

10.1%

52.3% | | 47.7%
Diverse < 1%

Offset flight when flying to the destination of the event

10.1%

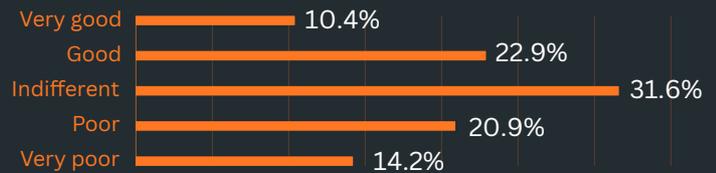60.9% | | 35.9%
Diverse < 1%

RESULTS

2023 Edition

02 SUSTAINABLE CONSUMPTION DURING CONCERTS

From your experience, how do you evaluate the efforts done by concert and festival organizers in the following sustainable actions?

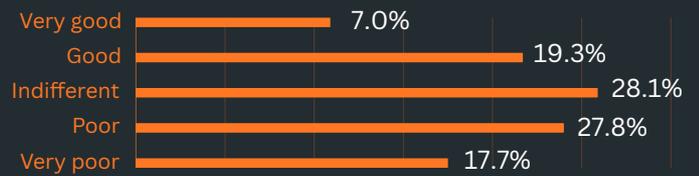### Helping fans better dispose personal waste

- Very good — 6.1%
- Good — 20.2%
- Indifferent — 24.5%
- Poor — 30.2%
- Very poor — 19.0%
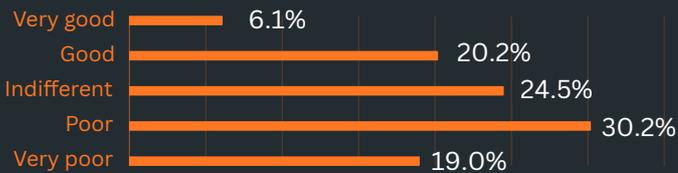
Offering appealing plant based food options

- Very good — 10.4%
- Good — 22.9%
- Indifferent — 31.6%
- Poor — 20.9%
- Very poor — 14.2%

Sustainable mobility before and after the event

- Very good — 7.0%
- Good — 19.3%
- Indifferent — 28.1%
- Poor — 27.8%
- Very poor — 17.7%

Selling sustainably produced merchandise

- Very good — 7.0%
- Good — 19.3%
- Indifferent — 28.1%
- Poor — 27.8%
- Very poor — 17.7%

Implementing reusable cup schemes

- Very good — 3.6%
- Good — 14.7%
- Indifferent — 21.4%
- Poor — 30.9%
- Very poor — 29.4%
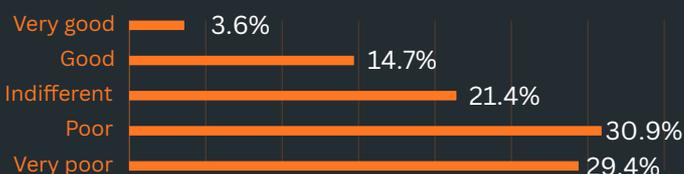
Reducing overall use of plastic
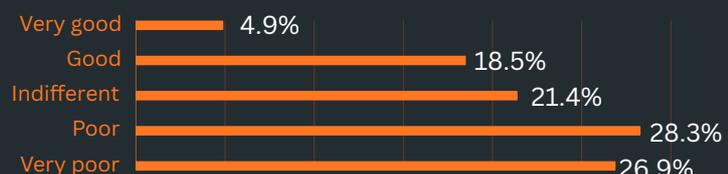
- Very good — 4.9%
- Good — 18.5%
- Indifferent — 21.4%
- Poor — 28.3%
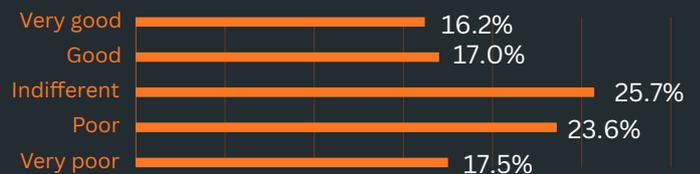- Very poor — 26.9%

RESULTS

02 SUSTAINABLE CONSUMPTION DURING CONCERTS

From your experience, how do you evaluate the efforts done by concert and festival organizers in the following sustainable actions?

Using renewable energy

Very good	16.9%
Good	17.8%
Indifferent	21.1%
Poor	22.3%
Very poor	21.9%
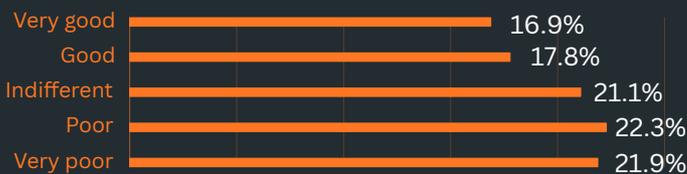
Having environmentally friendly sponsors

Very good	16.2%
Good	17.0%
Indifferent	25.7%
Poor	23.6%
Very poor	17.5%

02 COMMUNICATING SUSTAINABILITY

To which extent to you agree with the following statements?

Items measured in a 1 (Fully disagree) to 5 (Fully agree) Likert type scale.

|	
Artists can influence fans to have more sustainable consumption behaviors.	3.78
It is the role of artists to raise awarenes towards climate and sustainability issues.	3.27
My favorite artists are frequently raising awareness towards climate and sustainability issues.	3.23

50.2%

of respondents in Germany agree or fully agree that it is the role of artists to **raise awareness** towards climate and sustainability issues.

RESULTS

2023 Edition

02 COMMUNICATING SUSTAINABILITY

How much do you enjoy when your favorite artist promotes content related to climate change and sustainability?

Very much enjoy
20.5%

Slightly enjoy
10.9%

Somewhat enjoy
25.9%

Moderately enjoy
32.5%
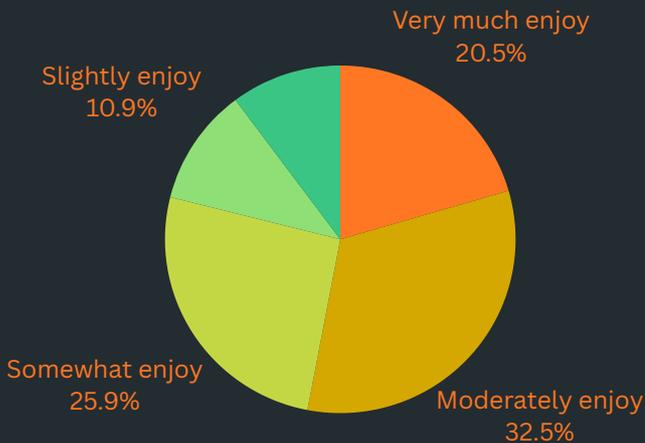
How risky is it to the image of artists, to be associated with climate change and sustainability issues?

Not at all risky
20.4%

Very risky
11.5%

Slightly risky
28.7%

Somewhat risky
30.3%
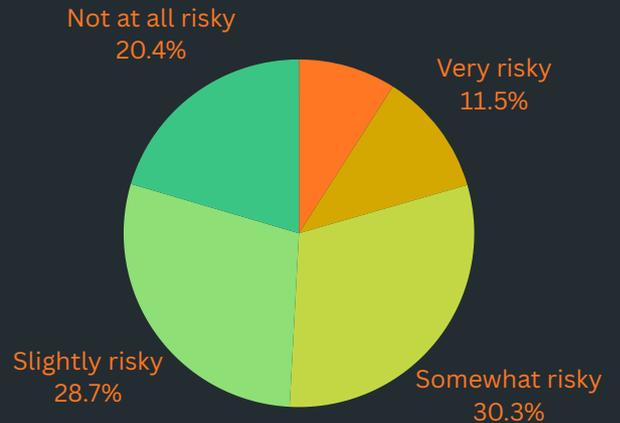
Who does **not** enjoy when their favorite artist promotes sustainability and climate change?

56.9% Males, 43.1% Females (diverse <1%)

35.4%
are respondents aged between 35 and 52 years

53.8%
are respondents hold up to a high school degree

Who finds it **risky** for artists to be associated with climate change and sustainability issues?

84.2% Males, 15.8% Females (diverse <1%)

63.2%
are respondents aged between 35 and 52 years

43.9%
are respondents hold up to a postgraduate degree

KEY INSIGHTS

02 SUSTAINABLE CONSUMPTION

- **Attitude towards sustainability and climate change**. The general attitude remains very positive, and similar across genders, age and educational levels. However, the attitude is not reflected in participation in climate activism events. Despite the interest, in general respondents reported having made only minor changes to their consumption behaviors. This years' editions also showed a much greater increase in attitude and behavior from male in comparison to 2022. This requires further investigation.

- **Sustainable consumption behaviors during concerts**. As in 2022, the positive attitude towards sustainability was not translated to actual behaviors. Sustainable consumption was mostly seen in practices such as sustainable mobility, litter disposal, electronic tickets and personal bottles for plastic reduction. More advanced practices, such as carbon offsetting or purchase of circular merchandise had very low adoption. In this year's edition male respondents reported to adopt sustainable behaviors much more often than before.

- **Communicating sustainable consumption**. Respondents still believe artists can influence behaviors and that it is their role to do so. Fans also do not believe it is risky for artists to do be associated with climate change and sustainability issues. Once again, educational level played a role in predicting the acceptance of musicians communicating sustainability related issues.

POLICY
RECOMMENDATIONS
FOR POLICY MAKERS

20
23
Edition

Live FM:
FAN MONITOR

POLICY RECOMMENDATIONS FOR POLICY MAKERS

TECHNOLOGY & INNOVATION

1 **Artificial intelligence (AI)**: In view of the acceptance of artificial creativity in music, consider ways of ensuring authorship and copyrights for composers and/or programmers and protect existing rights.

2 **Artificial intelligence (AI)**: Consider ways of supporting artists, composers and music related institutions, negatively impacted by the further adoption of artificial creativity in music.

3 **Artificial intelligence (AI)**: Explore ways in which artificial creativity can be introduced in education to ensure familiarity and expertise.

4 **Facial recognition technologies (FRT)**: Actively encourage venues and organizers to clearly communicate when, and how, FRT is implemented. E.g., how the data is stored, analysed, and the purposes of use.

5 **Facial recognition technologies (FRT)**: Consider ways of supporting personal privacy in public spaces during live hedonic experiences, and of future use of sensitive consuemer data.

SUSTAINABLE CONSUMPTION

1 **Education**: Liaise with organizers to develop targeted communication strategies for individuals of different demographic profiles, to engage in sustainable consumption behaviors during live experiences.

2 **Reward systems**: Support organizers in implementing innovative incentive systems to drive faster adoption of sustainable consumption behaviors among individuals with positive attitude towards it during hedonic event experiences.

3 **Carbon offsetting**: Develop strategies to encourage consumers to offset carbon emission when in transit to and from hedonic event experiences.

4 **Circular products**: Develop measures to encourage the production, selling and consumption of circular products in hedonic events.

5 **Communication**: Liaise with artists and events to co-create messages to inspire sustainable consumption behaviours among music fans.

CONTACT

For a copy of this report or more information regarding the project, please contact:
Prof. Dr. Francisco Tigre Moura at **francisco.tigre-moura@iu.org** or go to the Live FM: Fan Monitor page at LiveInnovation.org/fan-monitor

REFERENCE

Tigre Moura, F.; Leschik. D. (2023). Live FM: Fan Monitor (2023 Edition). An analysis of attitudes and behaviors of music fans in Germany towards technology innovation and sustainable consumption. Retrieved from Live FM: Fan Monitor project, Germany: https://liveinnovation.org/fan-monitor

FUNDING

WOULD YOU LIKE TO COLLABORATE ON THE 2024 EDITION OF THE FAN MONITOR?

2023 was the final year of funding for the project (2021-2023). It is still uncertain whether there will be a 2024 edition of the Live FM: Fan Monitor. In case you wish to collaborate or fund it, please contact us.
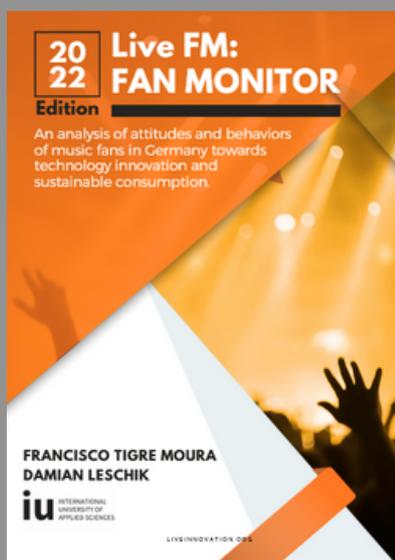
CONTACT

PROF. DR. FRANCISCO TIGRE MOURA
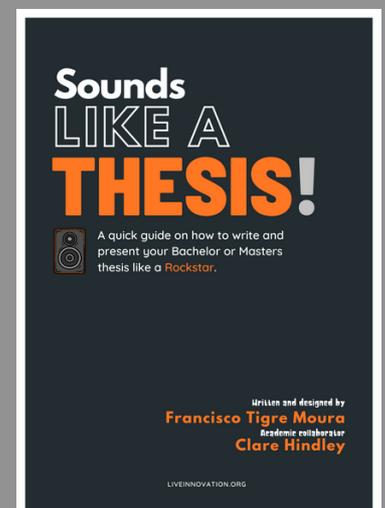IU UNIVERSITY OF APPLIED SCIENCES
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OTHER PUBLICATIONS

LIVE FM: FAN MONITOR
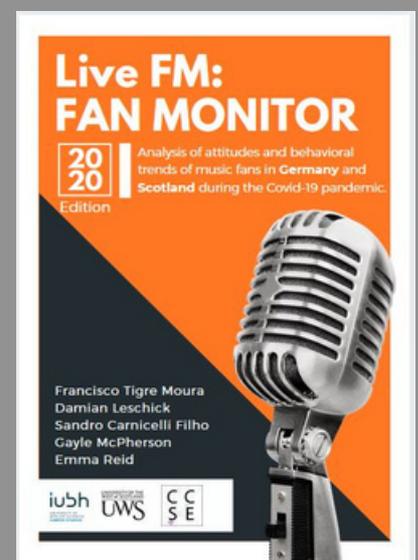
EDUCATIONAL MATERIAL
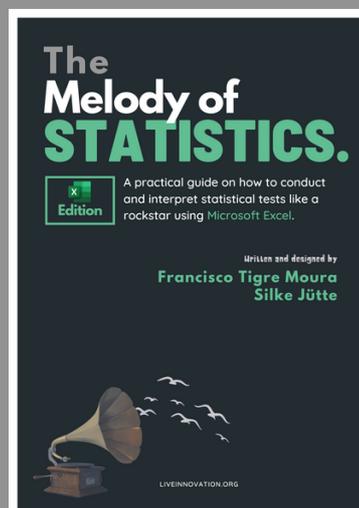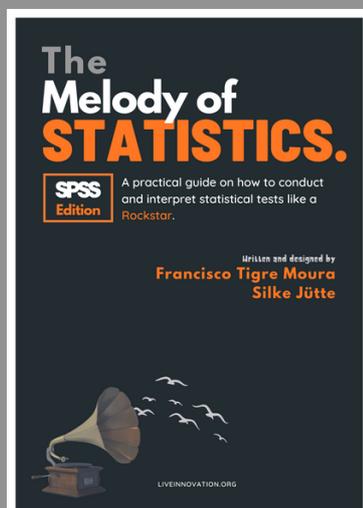
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