SUSTAINABILITY

CASE STUDY 02:

FRAMERATE: The Environmental Costs of a SXSW Immersive Installation

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Case Study Headlines:

7322.68 kgCO_2e

55.32%

of the total FRAMERATE Carbon Footprint

After over three years of R&D and Production on our Audience of the Future project, FRAMERATE, we were invited to make a Special Preview of the work at SXSW 2022 in Austin, Texas. The piece was selected for the prestigious Official SXSW Art Programme. The opportunity was well-timed and well-suited to the natural next stage in the project: its exploitation and the search for global collaborators, venues and distributors to take the work forward.

At the time of the invitation we were also nearing the end of a year-long period of deep learning around the sustainability impact of our studio, with a particular emphasis on reducing the environmental impact of the FRAMERATE project. It was clear that exhibiting FRAMERATE at SXSW would have a large environmental impact but we decided to proceed given the benefits for the work and our wider practice.

This Case Study is a deep reflection on the process and impact of that decision.

What is a ScanLAB Sustainability Case Study?

Each year, we commit to conducting at least one in-depth Case Study which interrogates and documents the impact of particular elements of our studio's work. Case Studies exist within the context of our wider studio **Sustainability Policy** and **Sustainability Impact Reports**.

Case Studies focus on a particular event, part of a production, technique, or decision-making process within a project that feels worthy of deeper notes for ourselves and for the wider community.

Case Studies will sometimes focus on a particular aspect of sustainability. For example the first two are primarily focused on the **Environmental Impacts** of their subject matter.

We aim for these Case Studies to:

- Test and highlight the use of our **Monitoring** and **Decision-making** tools
- Evaluate the impact of individual elements or decisions by reporting in the context of the project's success, limitations and finances
- Draw conclusions that inform future decisions
- Share our learnings

We don't define a rigid Case Study format; we tailor each to their context and content with the goal of providing useful insights.

Case Study Activities & Goals:

Project Context:

FRAMERATE is a large body of work that has developed new creative processes and tools to observe landscape change over time using 3D scanning technology.

Activity Details:

This Case Study specifically focuses on the decision to show a Special Preview of this work as an Immersive Art Installation as part of the prestigious Official Art Programme at SXSW festival in Austin Texas in March 2022.

Schedule:

Planning: Dec 2021 - March 2022

Installation: 9th - 11th March 2022

On Show: 12-15th March 2022

Post-show impacts: March 2022 and continuing

Actvity Goals:

The Special Preview aimed to:

- Be the first significant public showing of the FRAMERATE body of work. To be a successful, valued installation that people enjoyed and understood. To gather audience feedback about the installation setup and the work.
- Promote FRAMERATE to future venues and curatorial partners internationally and in the UK. To prove the quality of the work to this industry audience and to make significant contacts that lead to future shows.
- Attract partnerships, funding and sponsorship to expand the piece.
- Represent the conclusion of the UKRI funded element of the project and present this work to the industry. (NOTE: In tandem with the Special Preview we presented a series of workshops and team members spoke on SXSW panels.)

Strategic Decision Making:

In this section we aim to highlight some of the key decisions that shaped the way this project was completed. This is an opportunity for an open, honest presentation of the core motivators behind making a key business or project decision that has had significant environmental impacts.

Key Strategic Decision:

In this example the key decision was simple: do we show the work at SXSW in the US? Or find an alternative way to preview the piece in the UK or Europe? We broke our options down as follows:

High Environmental Impact: SXSW US Installation

- SXSW represented an extremely prestigious opportunity to present our work on an international stage.
- Beyond this the Official SXSW Art Programme offered a higher level of exposure and attention to the work than most projects receive at the festival.
- SXSW offered a ready-made audience of members of the public, new industry contacts, and existing industry contacts in one place.
- The festival was well-timed for the project, which finished R&D in Jan 2022 and gave a perfect timescale to prepare for a Special Preview.
- The installation meant team members travelling to the US. We know long-haul flights are the single biggest contributor to ScanLAB's carbon footprint with this type of flying representing 15-20% of the studio's annual emissions.
- The nature of a US show meant limited access for our own team members, who could have easily participated in a UK event with minimum impact.
- We knew SXSW would be expensive and the setting (SXSW conference and hotel venues) meant extra work, money and resources to make a worthy art installation.

Decision Making (cont.):

Medium Environmental Impact: Alternative UK or European Event

- There were no immediate, comparable alternatives to SXSW within an appropriate timescale. BFI London Film Festival (UK) falls much later in the year, as does Venice (Europe) and IDFA (Europe). Tribeca and Sundance are both later in the year and equally require a US trip, and an invitation was not guaranteed.
- CPH:DOX (Europe) was the only viable alternative in late March but was excluded as we had an alternative work on show there.
- At the time of this decision FRAMERATE did not have direct invites to alternative related events (Venice Art Biennale 2022 for example) which would have equalled the prestige of SXSW.
- Showing in Europe would have considerable cost and environmental impact, but long-haul flights would be reduced and less damaging alternatives might be available (Short Haul flights, ground transport, etc.)

Low Environmental Impact: UK/London showing outside of an existing event

- This option would have given us access only to our existing network of industry attendees and general public audience members.
- Even with specific invites we were unconvinced we would have the audience draw to propel the project to its next stage.
- This option would have been less risky in terms of finance and technical success with access to our full UK network of support, without travel and the risk of hired equipment.
- This option would have removed our largest environmental impact of team travel.

Decision Making (cont.):

DECISION:

- We decided to proceed with the US trip and the installation.
- We committed to maximising the opportunity of SXSW.
- We added an extension trip to the West Coast of America after Austin, organising high profile business development meetings with existing and possible future clients to maximise our use of the long-haul flights.

Detailed Decision Making:

In this section we aim to highlight some of the key decisions that shaped the way this project was executed. At ScanLAB we have developed our own simple Sustainability Decision Tracking Tool, a working spreadsheet that looks to record the financial and carbon costs for each decision. This tool tracks decisions with a high, medium and low impact option, and records our rationale and decision.

We have grouped the decisions we've made and the impacts we've monitored into three categories: **Transport, Energy and Resources** and **Waste**. We extract some key and consequential decisions for discussion here, but the entire decision tracking for the project is available to view via our website.

Transport

Who travels to the US and how do we travel?

Low Impact	Medium Impact	High Impact
0.00 $kgCO_2e$	7,018.64 $kgCO_2e$	20,353.92 $kgCO_2e$
£ n/a	£2,300	£10,000

Flying was the only feasible option for travel to the US. The Medium Impact option includes economy class flights for 3 team members, and the High Impact option is business class for the same 3 members. Having made the critical decision to attend the event, we minimised the team and chose the Medium Impact option for financial and environmental reasons.

Detailed Decision Making (cont.):

Energy Use:

Screen Specification

The decision to work with OLED technology was required for the aesthetic and creative success of the project. We focused our attention on the best-in-class technology in this category - made by LG - and then evaluated individual models on price and energy performance. In the end, the availability of hire equipment was the primary factor in our choice; in this case the variation in carbon impact was relatively insignificant.

55.30 kgCO_2e	63.20 kgCO_2e	70.10 kgCO_2e
£6,000	£8,000	£9,000
Low Impact	Medium Impact	High Impact

Detailed Decision Making (cont.):

Resource Use & Waste:

Room Design and Installation - Black Flooring

Having a black floor that was robust, hid the hotel carpets and was comfortable underfoot was a key decision for the success of the piece at SXSW. Our Lowest Impact option was to hire a sustainable rubber floor from SXSW-approved contractors. This option was prohibitively expensive. Our Highest Impact option was to buy a similar but much less environmentally friendly vinyl alternative in the US. The disposal of this in particular would have had substantial carbon implications. We chose our Medium Impact option: to bring a lightweight, black building fabric from the UK. This was quite cost-effective but resulted in some carbon emissions from flying this to the US. We are unable to account for its disposal, as the hotel staff were unable to guarantee it would be re-used. We believe it was not recyclable.

10.00 kgCO_2e	160.48 kgCO_2e	2348.30 kgCO_2e
£3,000	£400	£1,800
Low Impact	Medium Impact	High Impact

Monitoring and Results in Context:

At ScanLAB we have our own **Environmental Monitoring System** to track the carbon footprint of our studio and our projects, and we have committed to reporting the results annually. This system categorises all impact by project and in this section we are highlighting the results of that monitoring process to interrogate in detail the impact of the SXSW Special Preview of FRAMERATE.

** PLEASE NOTE: Our EMS is a living document. As we learn about better ways to quantify or monitor our impact we actively improve the accuracy of our previous figures and those going forward. This is a function of our view that our sustainability work is an evolving and continually improving practice. As a result, the most current EMS may show different values than the figures quoted below. The published versions of our EMS are synced to this report.*

Carbon Footprint

The total Carbon Footprint of FRAMERATE Special Preview at SXSW was 7322.68 $kgCO_2e$. 96% of these emissions come from our team's flights.

7322.68 $kgCO_2e$

This Carbon Footprint represents over half of the emissions that the entire 3+ year FRAMERATE project has created. It is more than every single day of scanning and travelling that created the FRAMERATE content and scientific datasets.

Monitoring and Results in Context (cont.):

NOTES: Total FRAMERATE emissions (Glasgow + Norfolk + SXSW = 1262.94 + 4651.18 + 7322.68 = 13,236.80 kgCO_2e = 13.24 tCO_2e). Of the total FRAMERATE emissions, SXSW makes up 55.32%.

55.32%

of the total FRAMERATE Carbon Footprint

Seen in relation to ScanLAB's overall Carbon Footprint for the year 2021 / 22 this represents 15% of our annual emissions.

15%

of ScanLAB's 2021/22 Footprint

Footprint Alternatives and Costs

Our Sustainability Decision Tracking Tool always attempts to record the alternatives to the decision we have taken, be they higher or lower impact. The process also attempts to quantify the costs involved in each of the other options.

These alternative scenarios are always somewhat limited in their accuracy. They do not receive the level of completeness of investigation as our chosen decision, as we follow these decided actions through to completion. However, we find these alternative options vital for future decision-making, and interesting to explore once a project is complete.

By these estimates there were reasonable alternatives that could have been taken to reduce our emissions on the FRAMERATE Special Preview. As discussed,

Monitoring and Results in Context (cont.):

the largest contributor to our emissions on the FRAMERATE Special Preview were the flights to and from Austin. Excluding the flights, more sustainable decisions could have reduced the remaining 5% of project emissions by more than half, to 83.78 $kgCO_2e$. These decisions were primarily driven by cost, and occasionally by creative direction. We estimate making these more energy-efficient decisions would have cost the project an additional £3,094.64.

Audience Impact

Total Visitors Reached

We do not have exact numbers for how many visitors entered our piece as festival guests entered unticketed and were free to enter our work at any time. Based on our public opening of a minimum of 8 hours each day, an average occupancy of between 8-10 guests and an average stay inside the piece of between 12 and 15 minutes we estimate the total number of visitors to be between 1000 and 1400 people over the course of our 4 day run. We're adding to this the attendees of our various workshops and talks at SXSW (an additional 150 audience members).

Our impact would therefore break down as 5.42 $kgCO_2e$ per audience member (based on average audience of 1350 people), or the equivalent of each audience member driving 19.32 miles in an average petrol car.

5.42 $kgCO_2e$

per visitor

Monitoring and Results in Context (cont.):

New Leads and VIPs Reached

We acquired between 60-80 new business contacts who had all had considerable exposure to the FRAMERATE project as a result of this trip. At the time of writing, we are in active conversation with around 20 of these as possible supporters or future hosts of FRAMERATE and are speaking to others around new business opportunities. If a quarter of these (e.g. around 5) result in FRAMERATE shows or new projects we consider that a huge success.

Conclusions:

This Case Study exemplifies a dilemma for us going forward by highlighting the effectiveness and the significant impacts of long-haul flights. By almost all criteria the installation of FRAMERATE at SXSW was a huge success: we received fantastic press, great audience numbers and feedback, and the piece was creatively and technically of the high standard we strive for. It is still too early to fully understand the business development impacts of showing the piece on the SXSW and North American stage but it seems the trip has propelled both the project and other business prospects forward in a major way.

However, this success comes with an equally large environmental caveat. Three years of studio-wide effort, teams covering thousands of miles in EVs and careful decision-making has been undone in a single decision to proceed with the transatlantic flights. This is made more stark by the focus we have had on sustainability in the later phases of the FRAMERATE project. We genuinely believe we made our SXSW as low impact as we could but it is undeniable that not going would have been better for the environment.

The impact of our SXSW trip when viewed in the context of a year of ScanLAB current emissions feels okay. 15% of our impact doesn't feel like too large a price to pay if the results for new work and FRAMERATE prospects are as strong as we hope they might be. However, the ScanLAB baseline carbon footprint to which that 15% is related needs to change if we are to meet our studio-wide sustainability objectives. In a ScanLAB where we have made progress on footprint reduction in other areas, the relative impact of all long-haul flights, will be substantially higher.