



IBC Accelerator Programme 2026

**VooPla: The Decision Twin - Decision-Ready
Sustainable Digital Twins for Broadcast & Virtual
Production Studios**

Imagine the Future

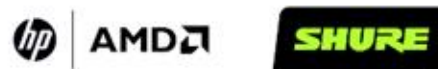
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Session Overview

Explore a decision-making journey for on-set shoots through the eyes of production teams & commissioners using **Voopla**.

Built-in collaboration with:





Problem we set out to solve

Production decisions lack confidence at greenlight.

- Limited early studio insights for both production and commissioning.
- Unclear feasibility around cost, sustainability and suitability.
- Misalignment across teams: creative ambition v technical knowledge

Result: Risk-averse commissioning, late changes and missed opportunities.



The Vision

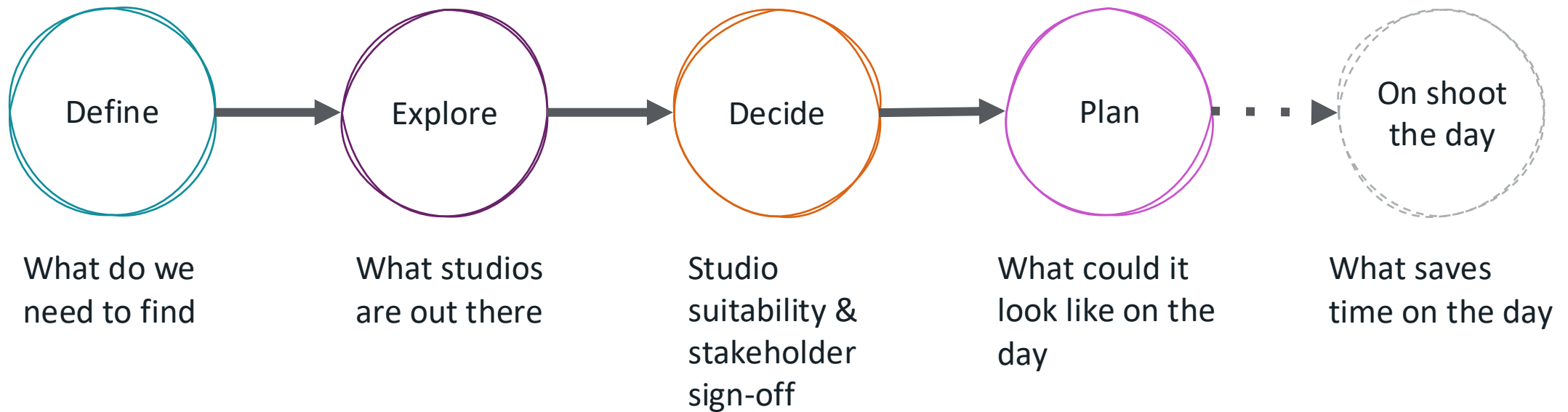
Voopla is a vital missing decision tool for productions.

A one-stop-shop for:

- Exploring Production Studios,
- Making collaborative location decisions,
- Pre-visualising how a studio will look with desired equipment, sets or configurations.
- Integration with third-party equipment Digital Twins and data sources.



Voopla: The User Journey





Voopla: The Prototype today

Features

- Aggregated records of Production Studios allowing for easy comparison.
- Streamlined collaborative decision making across team members with different expertise and priorities.
 - Focuses decision making on financial, logistics, studio capability and sustainability.
- Pre-visualization of potential studios using 3D planning technology and Gaussian Splat captures.
- Provides a foundation for integration with Digital Twins of production equipment.



Voopla: The team's approach

- Interviews with producers and commissioners to understand the commissioning process.
- Engagement with and 3D scanning of Production Studios.
- Rapidly iterating on prototypes and gaining feedback.
- Modelling the decision-making process using ontologies and knowledge graphs.
- Exploring integrations of studio equipment with a digital twin of Shure's DCA901 array microphone.
- Engaging with the wider production ecosystem.



Studio Capture Process



Who are we?

heliguy™ is a leading end-to-end workflow specialist for aerial and handheld geospatial solutions in the UK.

With 17 years of experience in the industry, and a dedicated team of experts, heliguy™ is supplying the scanning technology and data capture knowledge behind the VooPla project.

heliguy™ was an early adopter with XGRIDS and we have become experts with their handheld scanners. Our speciality is our expertise in data capture and advising clients on the best solution for their application.





What is Gaussian Splatting?

In simple terms, a space is scanned and photographed from many angles. Software then rebuilds it as millions of tiny, **soft coloured “blobs” (splats)** floating in 3D space instead of a solid mesh or a flat photo.

Photorealistic

Captures real lighting, reflections and texture.

Interactive

Viewers can move through the space seamlessly in a browser or VR.

Fast to Capture

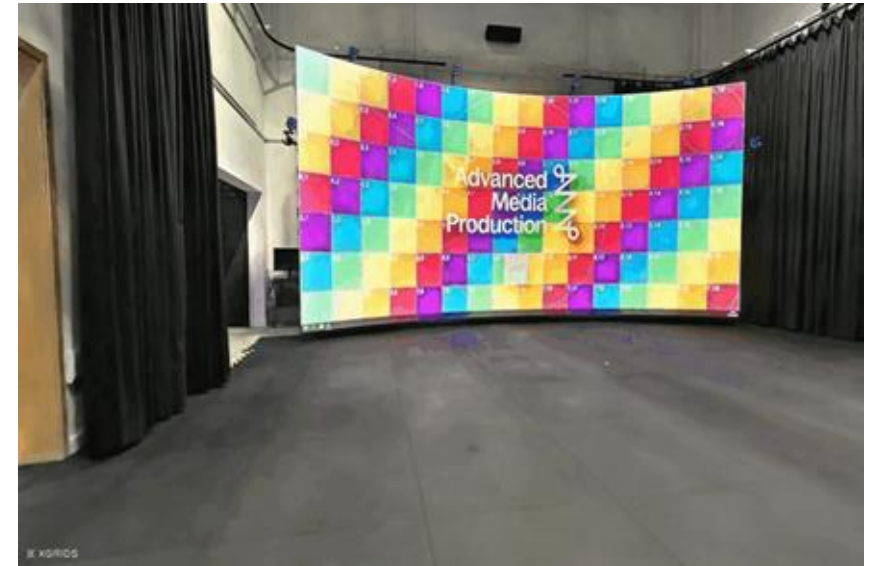
A studio can be scanned in minutes, not days

Real-time Rendering

High fidelity 3DGS optimized for interactive frame rates in web browsers

A lot more than just a Point Cloud

3D coordinate plus shape, orientation, opacity and view dependent colour



XGRIDS PortalCam scan of PROTO in Gateshead, England.

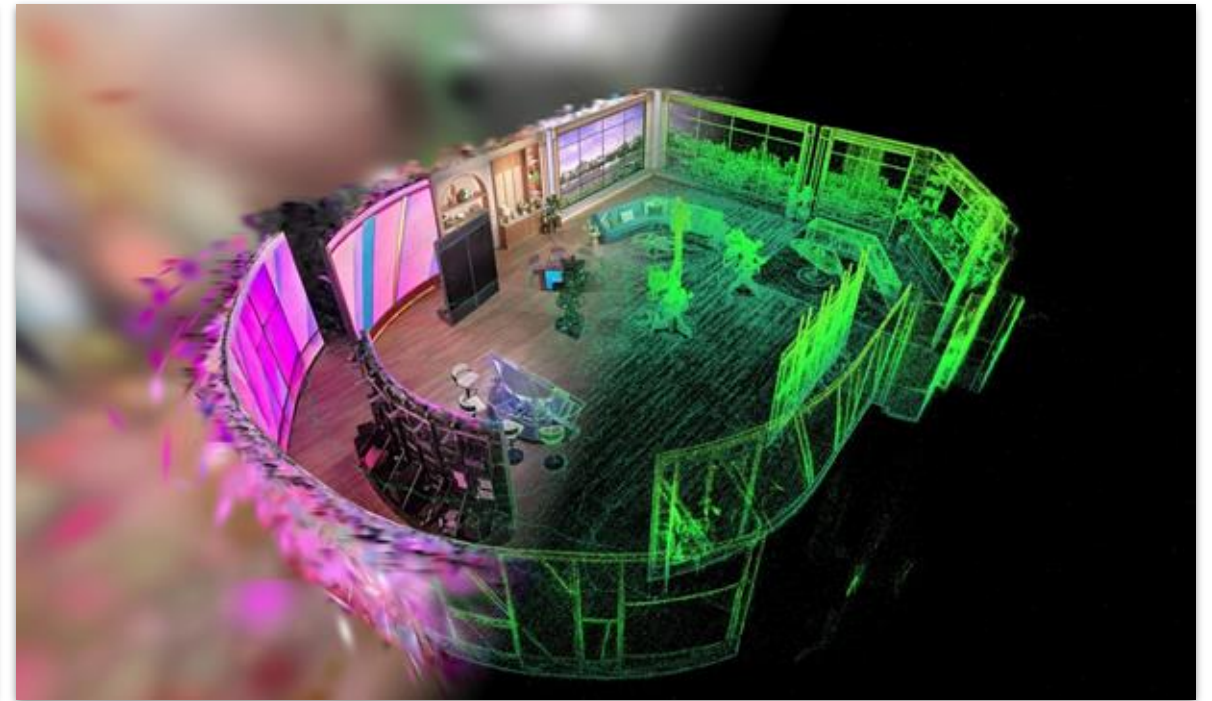


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What equipment did we use?



XGRIDS PortalCam scan of PROTO in Gateshead, England.



XGRIDS PortalCam scan of PROTO in Gateshead, England.





Capture

Handheld XGRIDS scanning - one walkthrough captures LiDAR geometry and colour imagery together.

Splat model generation - captured data is processed into a Gaussian Splat model of the studio using Lixel Cyber Color.

SLAM Scanning techniques - closed loop, multiple loop closures and multiple perspectives to achieve highest possible fidelity

Spherical Harmonics enabled - allow each gaussian to encode view dependent lighting and reflections





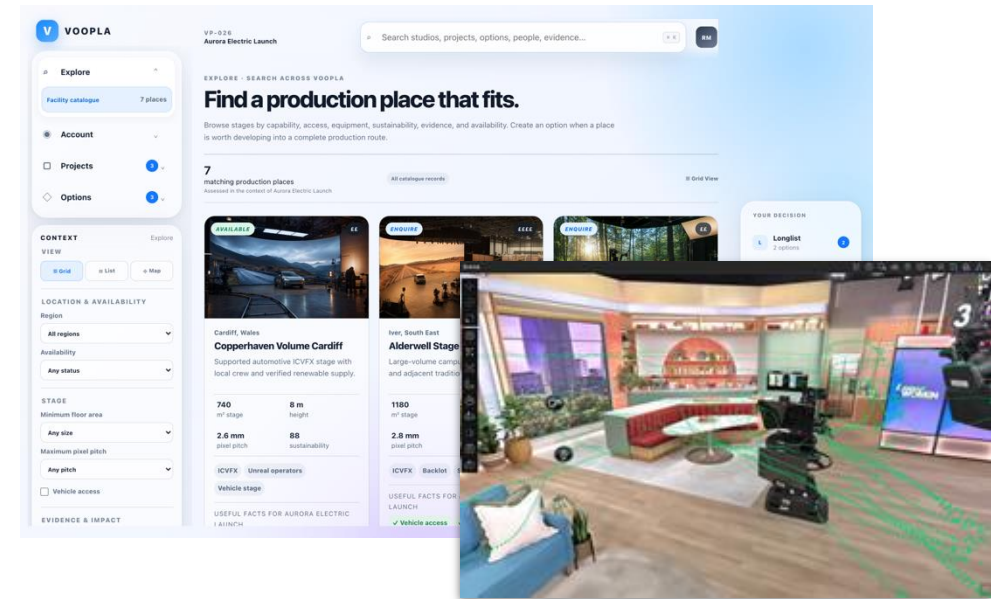
From one, to a network of studios

Every studio heliguy™ equips and trains adds another decision-ready digital twin to the platform.

Studios can be scanned multiple times to show different layouts and options.

Scans can also be used for location scouting and previsualisation. Plugins are available to bring scans into Unreal Engine and Unity.

Feeding the Decision Twin - the finished splat becomes the visual layer for VooPla's dashboard, used at the commissioning stage.



XGRIDS PortalCam scan of ITV's Covent Garden Studio, London, England with VooPla Explore Page.



The role of 3DGS in the future of Film and Media



XGRIDS PortalCam - 3DGS being used in live PGA Golf Broadcast

3DGS and XGRIDS Scanning Technology opens many doors across the full filmmaking workflow

- Voopla - showcases the value of 3DGS data in the pre-production applications.
- *Improve sustainability and reduce cost before budgets are locked.*
- SDKs and Plug-ins with multiple film and media platforms.
- Voopla pioneering the value of digital twins in Virtual Productions.



Decision Process

Exploring the existing decision process to
inform Voopla's design.



What matters to production teams?



Through our interviews we captured details on the factors influencing decision making:

- Studio Capability
- Cost
- Sustainability
- Crew Logistics
- Availability of add-on services & equipment hire



Decision Factors: Project Constraints



Projects often have a mix of constraints as part of the creative requirements. These include:

- Funding opportunities
- Particular sets and assets
- Favored equipment
- Timeline for delivery



Decision Factors: Crew Logistics



From our conversations, the capability for a studio and its surrounding location to provide amenities for the crew is vital.

These include:

- Transport links
- Accommodation
- Catering
- Building capacity



Decision Factors: Audio Capability



Array microphones are ideally suited to Virtual Production studio

- IP / Network device – easy to connect
- Discreet – hung in grid or wall mounted
- 8 individual lobes – replaces 8 shotgun mics
- Each lobe steerable:
 - Local control via GUI
 - Remote control via 3rd party system



Decision Factors: Sustainability

A screenshot of the 'Sustainability' section within the 'CARDIFF FULL SUPPORT - OPTION BUILDER'. The interface includes a header with the title 'Sustainability' and a subtitle 'Combine facility evidence, travel impacts, regional spend, waste, mitigations, and calculated estimates.' Below this is an 'OPTION SECTION' dropdown set to '8. Sustainability' with a progress indicator '08 / 11'. To the right are buttons for 'INCLUDED', 'Remove area', and 'Create checkpoint'. The main area contains two input fields: 'ESTIMATED CARBON (KG CO2E)' with the value '3800' and a status of 'estimated - low confidence', and 'REGIONAL SPEND (%)' with the value '42' and a status of 'estimated - medium confidence'. Below these is a 'SUSTAINABILITY NOTES' section with a text area and a status of 'draft - medium confidence'. At the bottom, an 'IMPACT LEDGER' shows '0 sustainability decisions' and a set of filters for 'Power', 'Travel', 'Regional spend', and 'Waste'.

Sustainability is a factor for funding opportunities as well as compliance.

- Carbon Report
- Energy Mix
- Albert Certification
- Facility standing nominal Power Usage
- Min & Max Peak Power Usage
- Average Energy Usage per Day
- PUE
- Nominal Power Factor
- % of electricity from renewable sources
- Breakdown of Renewable Sources
- No. of EV charging points
- LED wall power efficiency (W/m²)
- Pixel pitch
- Volume of HVO fuel used vs. diesel



Prototype Walkthrough

Rachel's Journey



Voopla brings together records of production studios

A first interaction with Voopla will be the explore page.

Users can view surface-level details about each of the studios currently listed. Each studio profile card contains:

- Availability
- Size & dimensions
- Equipment
- Services
- Amenities

EXPLORE · SEARCH ACROSS VOOPLA

Find a production place that fits.

Browse stages by capability, access, equipment, sustainability, evidence, and availability. Create an option when a place is worth developing into a complete production route.

7 matching production places
Assessed in the context of Aurora Electric Launch

All catalogue records Grid View

AVAILABLE



Cardiff, Wales
Copperhaven Volume Cardiff
Supported automotive ICVFX stage with local crew and verified renewable supply.

ENQUIRE



Iver, South East
Alderwell Stage
Large-volume campus route with backlot and adjacent traditional stages.

ENQUIRE



Bristol, South West
Fernlight Volume Bristol
Specialist stage for naturalistic plates, macro work, and inserts.



A dedicated profile for production team members

To keep track of the joint decision making, each team member gets their own Voopla profile. The profile records:

- Collaborators
- Number of projects
- and current options in a review round.

The screenshot displays a user profile for Rachel Morgan. At the top, under the 'ACCOUNT' header, her name 'Rachel Morgan' is shown in large bold text, followed by a subtitle 'View your role, project access, assigned reviews, and recent decision work across VOOPLA.' Below this, her role 'RM' is listed, followed by her name 'Rachel Morgan' and email 'Project Owner · rachel@voopla.local'. A green 'ACTIVE' status tag is present. The 'TEAM PERSPECTIVE' section, titled 'Review the workspace as a collaborator', explains that each person sees the same project records through their own role. It lists four team members: Rachel Morgan (Project Owner, CURRENT), Maya Patel (VP Technical Supervisor), Priya Shah (Sustainability Lead), and Ellis Reed (Production Executive). The 'WORKSPACE ACCESS' section, titled '3 independent projects', states that project permissions keep each production's options, requirements, reviews, reports, and final decision separate. It features three metrics: 1 Review round, 6 Production options, and 0 Report snapshots. At the bottom, the 'REVIEW INVITATIONS' section shows 'No active review invitations'.

Team Member	Role	Status
Rachel Morgan	Project Owner	CURRENT
Maya Patel	VP Technical Supervisor	Review
Priya Shah	Sustainability Lead	Review
Ellis Reed	Production Executive	Review

Metric	Value
Review rounds	1
Production options	6
Report snapshots	0



Every production has a living project page

Keeping track of all the changes and updates as a production comes together can be difficult.

The Voopla project page solves this by bringing together all risks, options, and decisions into one view. From here users see:

- Collaborators,
- Proposed shoot configurations,
- Current options in a review round.
- Any flagged risks.

The screenshot displays a project page for 'Aurora Electric Launch' (PROJECT - VP-026). The page is designed to provide a comprehensive overview of the production's progress and key decisions. At the top, a blue header bar contains the project title and a description: 'Develop and select a credible virtual-production route for a premium electric vehicle launch.' A blue button labeled 'Explore studios' is positioned in the top right corner.

The main content area is divided into several sections. A top row of four cards provides a high-level summary of the project's status:

- OPTIONS:** 3 routes (1 studio-only, 2 developed)
- PLANNING COVERAGE:** 12 included areas (Across independent options)
- TEAM UPDATES:** 2 active proposals (1 submitted, 1 impact reviews)
- DECISION:** 1 shortlisted (2 longlisted, decision open)

Below this summary, the 'OPTION LANDSCAPE' section is titled 'Different depths, equally valid'. It lists three options, each with a thumbnail image, a title, a brief description, and a rating of stars:

- Cardiff Full Support:** Copperhaven Volume Cardiff - 8 areas - 1 team updates (5 stars)
- London Night Drive:** Lattice Quay Studios London - 4 areas (4 stars)
- Alderwell Scale Build:** Alderwell Stage - Studio only (3 stars)

Each option card has a corresponding button on the right: 'SHORTLIST' for Cardiff Full Support, 'LONGLIST' for London Night Drive, and 'OPTION' for Alderwell Scale Build.

The bottom of the page features three more cards providing a summary of actions, impact reviews, and risks:

- ACTIONS:** 1 owned production tasks (0 blocked, 0 in progress)
- IMPACT REVIEWS:** 1 connected changes (Each explains the affected included planning area)
- RISKS:** 1 open risk records (1 high or critical impacts)



Options = Studio + Equipment + Services

Recognizing that a studio is only part of the puzzle, Voopla works in 'options' that bring together the physical location combined with add-ons that can make a once poor candidate much more attractive.

An 'Option' combines the data from:

- availability,
- equipment in the studio
- hired equipment
- Travel accommodations
- Overall estimated cost
- Sustainability considerations

Cardiff Full Support

A valid option begins with a studio. Add planning areas only when they help this project make a better decision.

Create checkpoint
Invite collaborator

DECISION TIER shortlist	INCLUDED 8 planning areas	INFORMATION 3 confirmed · 15 estimated	TEAM UPDATES 1 awaiting review
----------------------------	------------------------------	---	-----------------------------------

STUDIO SELECTED

Copperhaven Volume Cardiff
Supported automotive ICVFX stage with local crew and verified renewable supply.

DECLUDED IN THIS OPTION
The current decision picture

TEAM UPDATES
1 collaborator proposal
Review exact additions, removals and changes
Review updates

2026-09-14 - 2026-09-18

0 schedule entries

2 cameras · 0 kit items

14 travelling - 9 local

0 journey legs

0 room plans

3,800 kg CO₂e

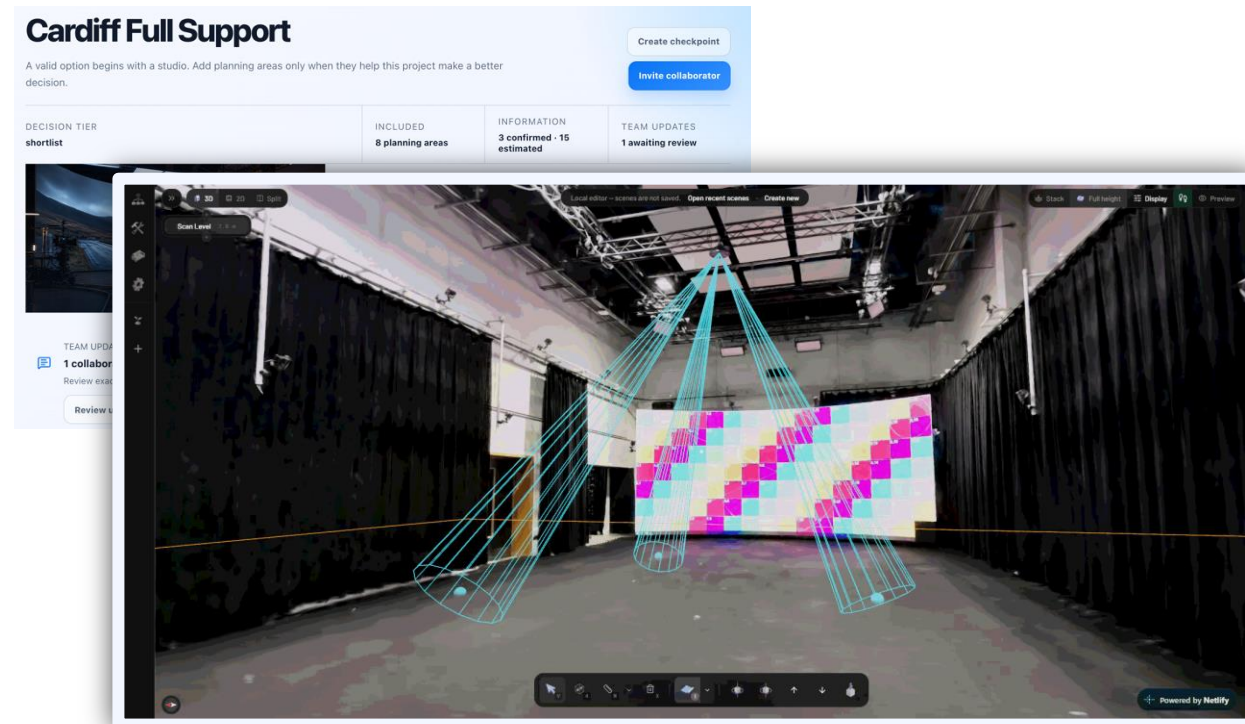
€128,000-€154,000



Decided on a studio? See what it will look like on the day!

To help with those final details of how a studio will look on the shoot day, Voopla has a 3D studio layout editor and immersive viewer that allows:

- Virtually walkthrough the studio in a fully immersive experience.
- Check where production assets (cars, stages, sets) will be positioned.
- Explore how hired equipment can be used within the studio.
- Visualize how camera and microphone equipment can be configured in the studio space ahead of time.





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VR Gaussian Splat Viewer





How would someone use the platform?

Meet Rachel



Job: Production Manager

Responsibilities: finding a suitable studio that can cater to the needs of the current production.

Painpoints:

- Juggling the differing requirements of many stakeholders at once.
- Keeping up with studio availability and suitability.
- Managing the moving parts that bring a studio together as an option (sustainability, crew logistics, equipment availability, cost).

EXPLORE · SEARCH ACROSS VOOPLA

Find a production place that fits.

Browse stages by capability, access, equipment, sustainability, evidence, and availability. Create an option when a place is worth developing into a complete production route.

7

matching production places

Assessed in the context of Aurora Electric Launch

All catalogue records

Grid View

CONTEXT

Explore

VIEW

Grid

List

Map

LOCATION & AVAILABILITY

Region

All regions

Availability

Any status

STAGE

Minimum floor area

Any size

Maximum pixel pitch

Any pitch

Vehicle access

EVIDENCE & IMPACT

Higher confidence only

Renewable supply confirmed



AVAILABLE

££

Cardiff, Wales

Copperhaven Volume Cardiff

Supported automotive ICVFX stage with local crew and verified renewable supply.

740

m² stage

8 m

height

2.6 mm

pixel pitch

88

sustainability

ICVFX

Unreal operators

Vehicle stage



ENQUIRE

££££

Iver, South East

Alderwell Stage

Large-volume campus route with backlot and adjacent traditional stages.

1180

m² stage

10 m

height

2.8 mm

pixel pitch

58

sustainability

ICVFX

Backlot

Set build



ENQUIRE

££

Bristol, South West

Fernlight Volume Bristol

Specialist stage for naturalistic plates, macro work, and inserts.

350

m² stage

6 m

height

2.3 mm

pixel pitch

84

sustainability

ICVFX

Natural-history imaging

YOUR DECISION

L

Longlist

2 options

2

S

Shortlist

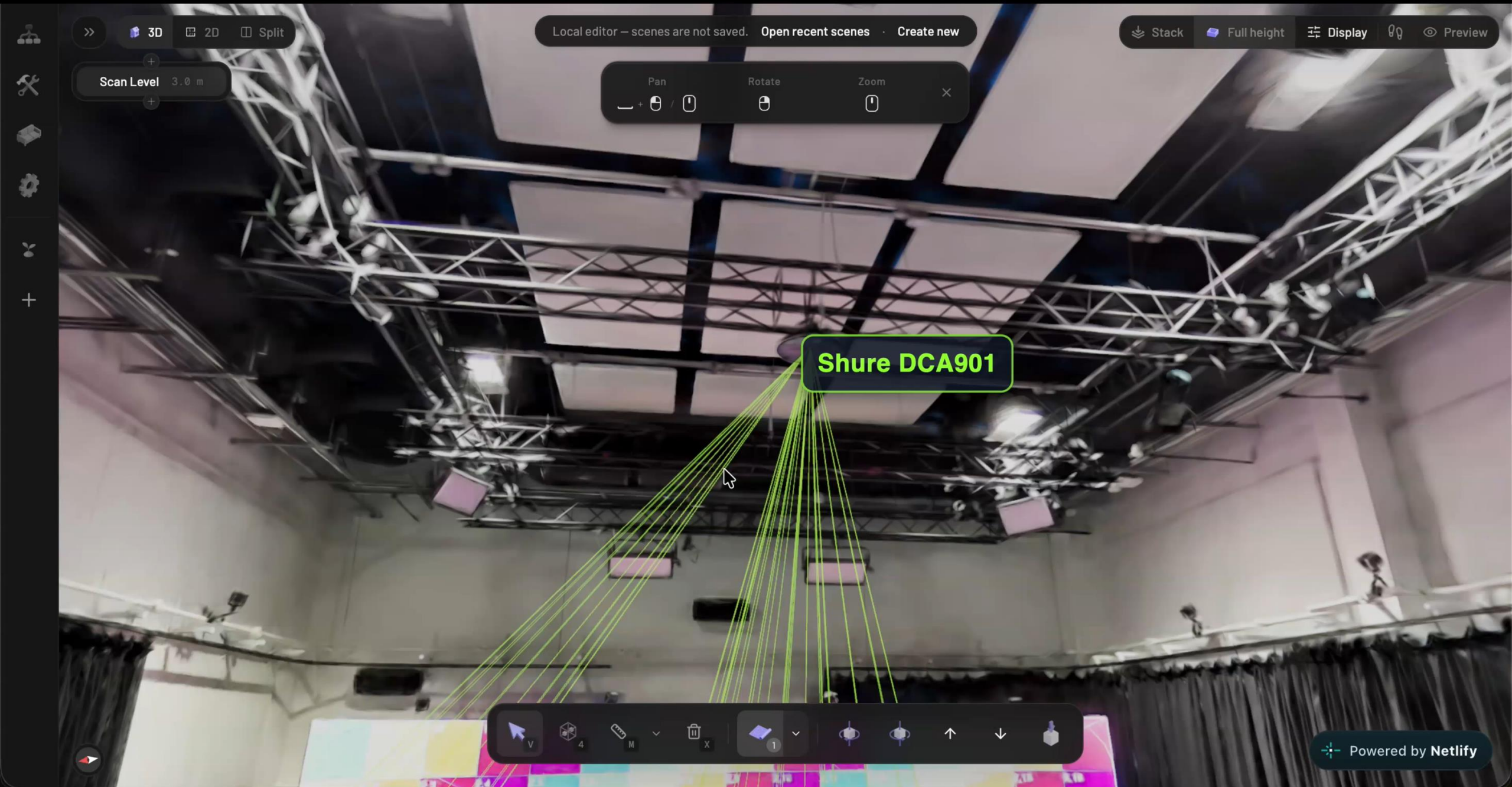
1 option

1

✓

Finalise

Choose a candidate



>>

3D

2D

Split

Local editor – scenes are not saved. Open recent scenes · Create new

Stack

Full height

Display

Preview

Preview

Scan Level 3.0 m

Pan

Rotate

Zoom

Shure DCA901



Powered by Netlify



Voopla hardware integration – Microphone Arrays

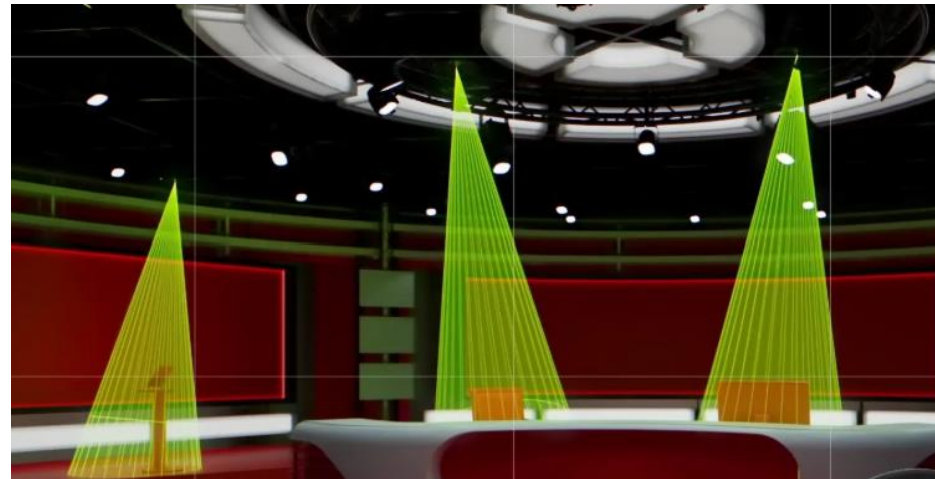


DCA901
Broadcast Microphone Array

- **Steer, don't physically reposition.** Aim 8 separate lobes remotely as the action moves.
- **One array.** Eight isolated channels from a single position.
- **One network connection.** Audio, power, and control over one cable.
- **DSP at the source.** EQ, compression, delay, and automix onboard



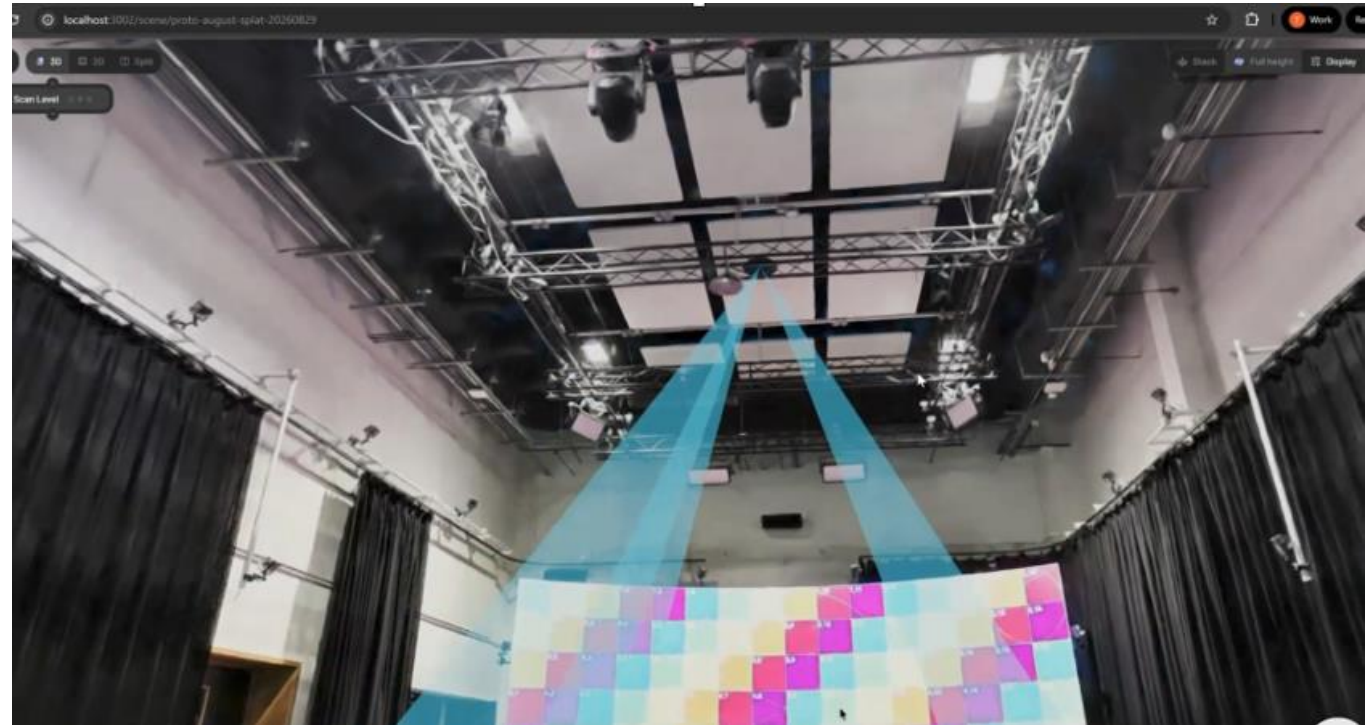
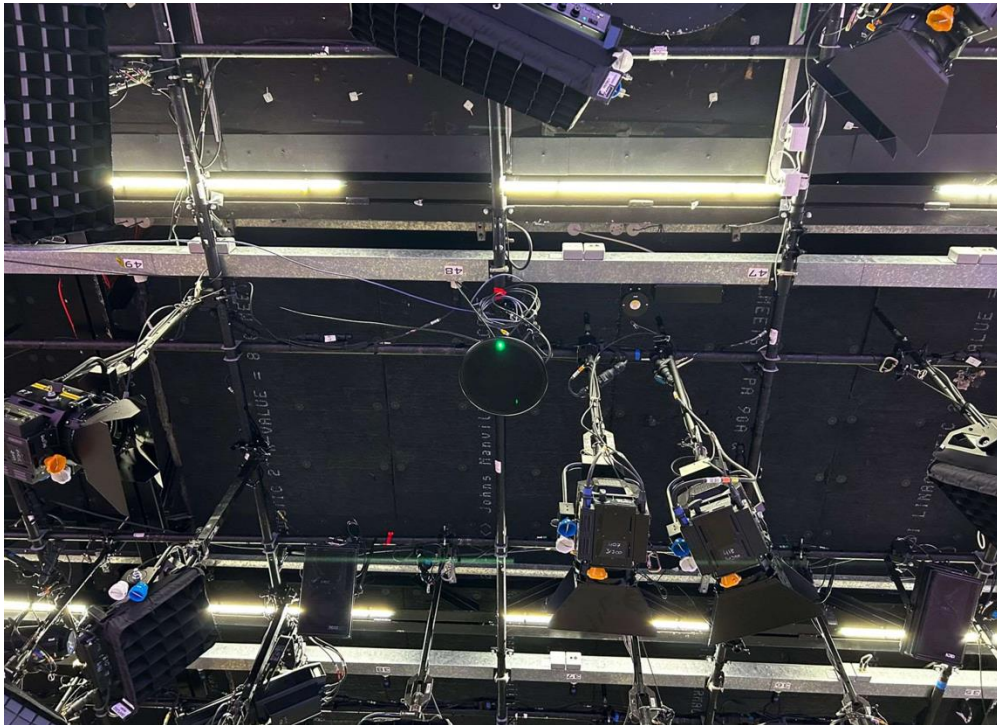
Voopla hardware integration





#IBCAccelerators2026

Voopla hardware integration





Learnings

What will shape where Voopla goes next?



Learnings

Insights on the Production Studio decision-making process from Voopla

- Sustainability data is a gap, but there are green-shoots of solutions.
- Decision-making involves many differing priorities from different stakeholders. Voopla does provide clarity in this process.
- Beginnings of a domain model for decision-making in production studios for integration with other digital twins.



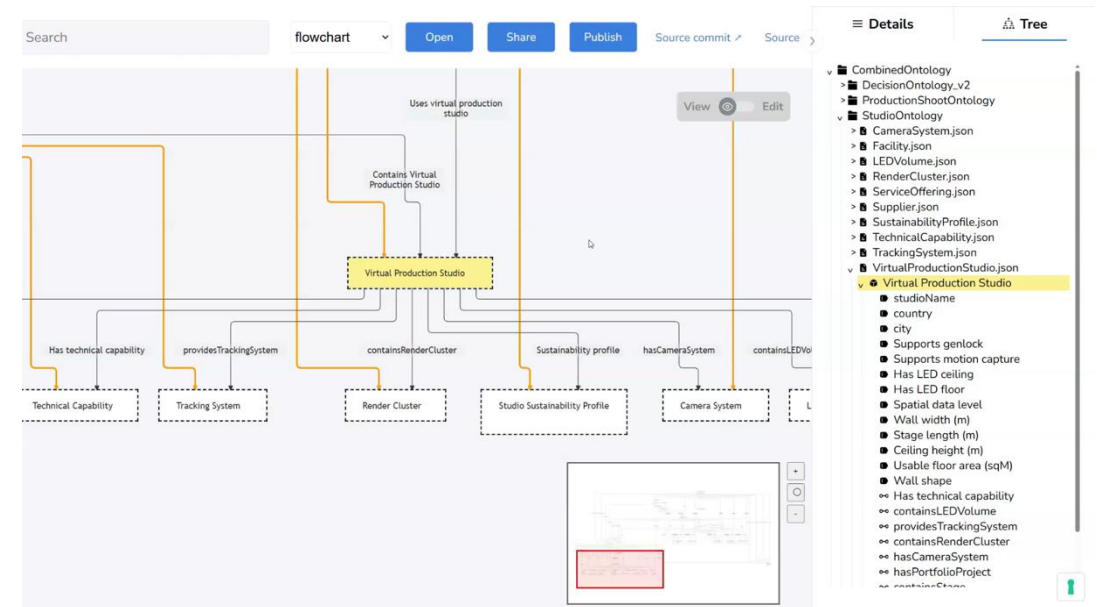
XGRIDS PortalCam scan of ITV's Covent Garden Studio, London, England.



Learnings

As part of Voopla, we've also been creating an underlying map of how decisions are made for Production Studios.

This ontology will make it easier in the future to integrate with other Digital Twin systems and allow for AI-enabled reasoning.





Where to next?

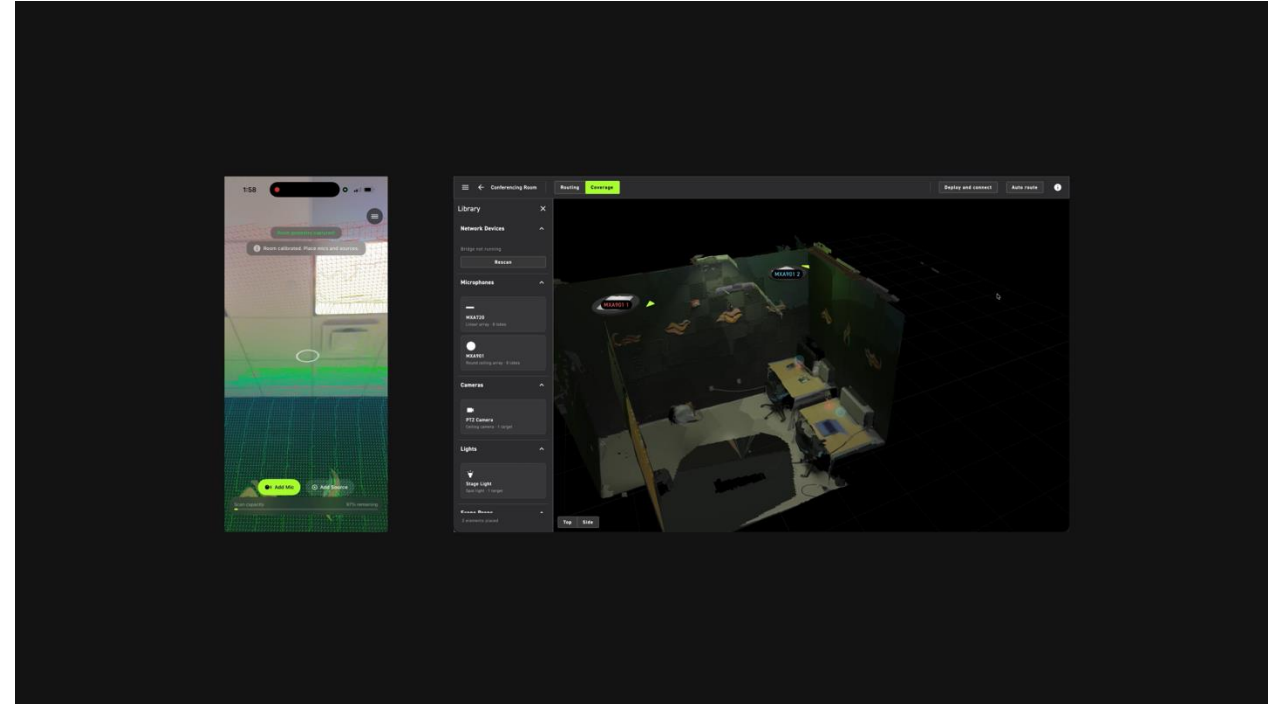
Two-pla



Democratization of Digital Twin Capture

How might anyone capture a digital twin of their space?

- Workflows streamlined for users just getting started with designing systems in a virtual space.
- Provides unparalleled device control for users relying on traditional tools.



Textured LiDAR scan captured with iPhone Pro App experiment used to design microphone system in digital twin.



Voopla: Next Steps

- More studio scans.
- Implementing feedback from IBC participants at the exhibition booth.
- Expanding the underlying ontology and data model.
- Further and more realized integrations with studio equipment manufacturer's Digital Twins.





Champions



Participants





**Thank
You**

