





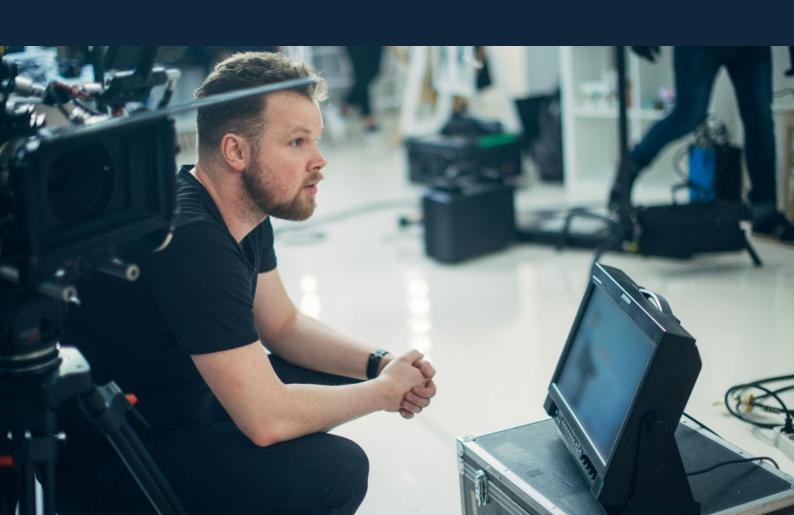
Supporting Professionalisation of the Sustainability Department in UK Screen Production:

Expertise for a Sustainable Industry

Report author

Dr Leora Hadas

Institute for Screen Industries Research, University of Nottingham



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About the Institute for Screen Industries Research

The Institute for Screen Industries Research at the University of Nottingham is a leading centre for academic-industry partnership engaging with challenges in the global screen sectors.



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Executive summary

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Context:

- As part of the post-pandemic acceleration of the green transition in the film and television industries in the UK and worldwide, more and more productions are opting to include a "sustainability department": a range of roles concerned with designing and implementing strategies to mitigate the environmental impact of the production.
- These roles represent a change from a stillcommon situation in which sustainability responsibilities are assigned as a secondary role to existing crew or taken up by non-specialists.
- Five consultancies in the UK now provide sustainability services to the film and television industry and hire out sustainability department crew: four of those were established since 2019, mirroring a similar growth trend in the US and EU.
- This report examines the sustainability department through interviews with employees of Neptune Sustainability Ltd, a pioneering UK-based consultancy working on feature film and high-end television productions with transnational streamers. It is based on 11 onehour semi-structured interviews conducted with Neptune founder and employees, freelancers managed by Neptune on productions and former employees who have moved on to other roles.

Findings:

The Neptune model:

- Neptune's model for a department structure is composed of a consultant and coordinator hired through Neptune, and one or more PAs hired through the production. It is rare for a production to have more than one PA, although productions with multiple units may have a PA or even a coordinator per unit. In addition for days where the production brings in a large number of 'supporting artists' for crowd scenes, there may be a need for additional PAs.
- The consultant liaises with the studio and provides oversight, expertise, and administrative support.
- Coordinator is a hybrid on-set/office-based role focused on data collection, tracking and analysis, and manages the PAs on set.
 Coordinators also carry out research and propose new kit and practices to reduce production impacts.
- The PA works on set, dealing directly with waste streams and new equipment, acting as point of contact for the crew during filming and as the face of sustainability on set.
- In practice, for cost-cutting reasons, many productions employ only the consultant and one additional worker, who may have the title of either PA or coordinator regardless of responsibilities within the production.

Department structures, roles and responsibilities:

- The UK has no standardised structure for sustainability departments or descriptions for roles. The consultancy is normally brought in to support the production in achieving a sustainable production certification eg albert Sustainable Production Certification. Beyond this, the remit and responsibilities of the department and its roles are decided on an individual basis by the production and consultancy according to production priorities.
- Factors shaping department responsibilities may include:
- Requirements of the certification pursued by the production.
- Priorities and protocols of the commissioning streamer or studio.
- Division of responsibilities between sustainability and other departments eg electrical.
- Degree of buy-in from senior executives and the resources allocated, eg a departmental budget.
- Crew perceptions and expectations of the department's role.
- Generally, department work will involve:
- Data collection on the production's resource use and waste streams. This includes keeping track of fuel use and emissions from generators, transportation, and other energy needs, and of items and materials purchased and used (including filming equipment, set materials, props and costumes, catering, office supplies) and their disposal, recycling and donations.
- Data analysis and producing reports for the certifier and for the production and commissioner's own use.
- Researching and proposing new technologies, solutions, and practices to reduce production impacts, supporting the integration of new kit. This may also include finding recycling and donation solutions for waste.
- Education and advocacy with the crew, producing signage and instructional material, answering questions and advocating for more sustainable behaviour.

Through their work, role holders in the sustainability department gain broad experience of integrating sustainability into production practice, and collect information on crew behaviour and attitudes and on best practice in communication and persuasion. These professionals act as hands-on ambassadors for the green transition in the industry, connecting and channelling knowledge between producers, crews, research, vendors, certifiers, and advocates.

Key skills

- Effectively carrying out sustainability roles requires a complex and interdisciplinary skillset covering both environmental management and media production skills. Interviewees highlight the importance of scientific and technical understanding, data literacy and management skills, production know-how, science communication skills, and soft skills of empathy, diplomacy, and resilience.
- Interviewees were split over which of these skills are the most important to come in with and most difficult to develop. Those with a production background stress that without familiarity with industry practice and work culture, change is almost impossible to effect. On the other hand, interviewees from a science background argue that scientific and data skills are more challenging to acquire, especially since newcomers cannot learn them from anyone else on set.
- All interviewees pointed to a particular skills gap around technical and electrical skills and the need for more training in this field.

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Executive summary

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Key challenges

- Lack of standardisation: There is currently no standard framework for sustainability department structures and hierarchies, role descriptions and titles, pay rates and working remits and norms. The department and roles are absent from resources and guidance provided by albert and other industry bodies such as the BFI, BAFTA, BECTU, ScreenSkills. As a result, on each production the consultant and role holders must negotiate their remit from the ground up and handle a different set of responsibilities and demands. This limits not only practitioners' ability to perform their roles on individual productions, but also their potential to contribute to industry-wide change.
- Lack of industry experience and misaligned expectations. The relative newness and fast evolution of the sustainability department means many producers and crews have no experience with the department and no understanding of its work. This leads to mismatching of expectations, mismanagement of roles, and lack of ability to evaluate and best utilise the department's work, and leaves role holders spending valuable time and effort having to explain and justify their presence.
 - Even among those who have worked with sustainability roles before, an outdated view of sustainability as focused on "bins and water"

 the most visible yet largely least impactful production impacts remains prevalent: this can lead to mismanagement by producers and tensions with other crew when role holders are seem as overstepping their bounds.
- Lack of training and professional development opportunities. There are currently no UK-wide training pathways or opportunities for sustainability roles, although a programme specific to the Welsh industry is being trialled by Media Cymru | University of South Wales, in partnership with Severn Screen as of April 2024. Role holders are largely trained on the job, straining consultancy resources and leading to the siloing of practice and expertise. Lack of certified training impacts practitioners' confidence and ability to assert their professionalism and skills, both of which are crucial for effectively advocating and leading behaviour change. Lack of certified training also inhibits productions' ability to evaluate practitioners' skill levels and suitability to the project and can lead to a lack of trust.

- Crew intransigence, while different to the structural challenges outlined, was identified as source of burnout and challenge for practitioner mental health and wellbeing. Interviewees report often struggling with hostile attitudes from other crewmembers. Outright or ideological climate denialism was only rarely encountered, but pushback can be categorised into the following: Change aversion in a high-risk industry that values the tried and true; resistance to influence from people and ideas deemed as "outsiders" to the industry; and perceptions of sustainable practice as extra work adding pressure to an already busy and overworked workforce.
- Lack of networks and professional community. The sustainability department is often a "department of one", with little possibility for support from other departments who lack the relevant expertise. This can lead to role holders feeling isolated and struggling to find professional support. In the absence of a central organising body or any dedicated spaces within albert and other industry bodies, few opportunities exist for practitioners to connect and network and to share best practices, concerns, and experiences. The sense of isolation exacerbates the impact of encountering doubt and hostility on the job.
- In terms of institutional support, interviewees report a low level of contact with certifying bodies and limited availability especially from albert. Some streaming platforms are now creating semi-formal internal spaces for sustainability practitioners to network: these can be very effective in supporting practitioners but result in a siloing of expertise within proprietary systems.

Motivation and rewards

- Interviewees derive a sense of success from impact on two levels. First is directly mitigating the environmental impacts of a production.
 Second is changing crewmembers' attitudes toward sustainability, leading to these crewmembers proactively engaging with environmental concerns and changing their behaviour, carrying the impact forward to future productions.
- A second source of reward is in working in roles that engage with the work of all other departments across the production. Interviewees report enjoying a unique perspective and insight into the production process and opportunities to observe, learn from and network with a wide range of role holders. Interviewees also note the possible career benefits of wide networking options.
- Some interviewees also highlight being the first people to bring a new piece of kit or technique on set and experimenting with its technical and creative possibilities.
- Overall interviewees find their jobs rewarding and highly meaningful and feel that the work they do day to day is important. While some are critical of industry greenwashing and certification as a "box-ticking exercise", all felt that their work is valuable even when they are only able to affect limited change

Future prospects and career trajectories

- The majority of interviewees expressed the desire to continue working in sustainability roles but were also uncertain about their options for career progression. This is due to the lack of defined pathways and role models and the sense of sustainability as an evolving and hard-to-predict field
- Interviewees understood the next step up from coordinator to be working independently as a consultant, and mostly felt they lacked the expertise and experience to take this step or weren't interested in becoming self-employed: meanwhile having no other prospects for progression.

Summary and recommendations:

- Sustainability departments have the potential to act as a "circulatory system" for the green transition in the screen industries: collecting and collating data and disseminating sustainability values and best practices. Practitioners connect productions and crew with scientific research, new technologies and vendors, and certifying bodies and industry initiatives, but are limited by lack of standardisation, support, and industry experience and education on how to best utilise their work and expertise.
- Industry bodies and initiatives leading the green transition (mainly BAFTA albert, BFI, regional development agencies, ScreenSkills and other educational charities) should work with practitioners and consultancies in order to promote the professionalisation of the field and integration of sustainability departments into the industry as a new normal.
- The report recommends the following steps:
 - Provide standardised guidelines for sustainability department roles. In collaboration with practitioners, develop and publish a set of guidelines for the structure and function of and the roles within the sustainability department. Such a framework would serve as a basis for contract negotiation and matching of expectations between practitioners and the productions hiring them. A useful example may be taken from New Zealand's NZ Greenlit initiative.¹
 - Promote increased visibility for sustainability departments. Promote the inclusion of the sustainability department and its roles within industry bodies' online spaces and resources and in person events. Develop an industry-facing information campaign with the aims of normalising the presence of sustainability departments in production, providing information on their function, and overwriting perceptions of practitioners from outsiders to valuable support in creating a sustainable industry.

- Create certification-bearing training for sustainability roles. Expand the sustainability coordinator training recently made available by Media Cymru | University of South Wales, in partnership with Severn Screen² into a set of regionally specific programmes building on a shared framework of standards for sustainability department roles in the UK. The ScreenSkills Trainee Finger programme³ offers a venue through which the training can be combined with a funded apprenticeship.
- Support professional community building. Include in the 2024 Albert Production Summit a roundtable event discussing the field for sustainability department and sustainability roles within production; following from this, hold an albert-led annual event for department role holders. Consultancies should consider forming a professional association to set standards, disseminate expertise, and advance professional interests such as screen credits and department visibility within the industry: Germany's Federal Association of Green Film and Television Consultants⁴ provides a useful model.
- Support CV building through screen credits and data access. As a condition for receiving Albert certification, require productions to include the sustainability department in the screen credits using a standardised framework for titles; and provide all members of the sustainability department full access to the data collected during the production.



¹ https://greenlit.org.nz/sustainability-department/

https://culture.research.southwales.ac.uk/research/media-cymru/media-cymru-training-sustainabillity-co/

https://www.screenskills.com/training/trainee-finder/

⁴ https://bvgcd.de/en

1. Introduction

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1.1 Context

The green transition in the film and television industries has, particularly since the upheaval of the COVID-19 pandemic that demonstrated the possibility of large-scale change within a short time, been accelerating and taking on new priorities. One element of this acceleration has been the emergence of new jobs and production roles specifically dedicated to environmental management of screen production.

Carbon calculators, sustainable production certification and action toolkits usually require productions to nominate an individual responsible for collecting and collating data on impacts, submitting this data through the calculator and liaising with the certifier, and holding responsibility for the execution of agreed sustainability plans. The BAFTA albert production toolkit, for example, calls for a senior person within the production to be accountable for data collection and reporting and for implementing agreed goals. It remains common practice, especially for smaller productions, for this to be assigned as a secondary responsibility to an existing role holder. These secondary sustainability roles carry a range of titles, eg Eco-Supervisor, Green Steward, Eco-Manager, implying a range of production positions from Head of Department down to Production Assistant. Many certifiers. including albert and Greenshoot in the UK, offer short (up to one day) training opportunities for practitioners wishing to take on sustainability as a secondary role: those cover the essentials of the climate emergency, green production, and the use of calculator and action toolkits. Those secondary role holders mostly remain only partly focused on sustainability, still carrying out their usual roles otherwise. Even when holding only a sustainability role within a particular production, practitioners lack in-depth expertise. This limits the scope of

their ability to go beyond the basic requirements of the certifier and drive changes in production practice.

At the same time, practitioners and businesses have begun to emerge that offer environmental management services to the film and television industry. This allows larger and better-resourced productions, whose environmental impacts are also more substantial, to hire dedicated professionals to take on data collection and work with the certification, and to consult on reducing production impacts. The Green Production Guide recommended as early as 2014 that production employ an Eco-Supervisor with "an exclusive focus on implementing and managing systems from prep through wrap, and problem-solves in conjunction with all departments." The advantages of having dedicated professionals in production sustainability roles were laid out by Victory (2014):

"If a single person was responsible for sustainability on-set they would have the expertise to know what policies would be the most effective, whilst causing the least inconvenience to crews. If this person was fully integrated into the crew they could then demonstrate and pass on their expertise to crew members. This person would be responsible for researching and implementing sustainability solutions and facilitating ease of compliance on-set. They could oversee the responsible disposal of waste during and after the shoot. They could even promote this work being done on-set through social media, press engagement and where possible, the application of celebrity endorsement, in the hopes that it will raise awareness of the feasibility of green filmmaking."

The US-based Earth Angel Sustainable Production Services⁵, founded in 2013, is largely recognised as the first environmental consultancy to founded specifically to work with film and television

production. In the UK, environmental consultancy Neptune Sustainability Ltd pivoted in 2012 to working exclusively in film and television. Today, the UK has five sustainability consultancies working exclusively on screen production: Neptune, Picture Zero (founded 2019), Sustainable Film (founded 2019), Creative Zero (founded 2021), and Futuretivity (founded 2022). A number of other consultancies also work with the industry alongside other creative sectors eg event management (eg Event Cycle), while some production companies specialising in sustainable production also offer consultancy services (eg Green Eyed Monster Film, Go Green Productions). In addition to in-house employees, these consultancies draw on a pool of freelancers that they hire and manage for productions on a by-project basis. In this model, responsibility for sustainability in production is centrally handled by role-holders brought on for the purpose: a range of roles increasingly referred to as the sustainability department.

While the field is still a small one in the UK, its speedy growth, and similar trends in other national industries, shows that demand for sustainability department roles is growing. Within less than four years, the post-pandemic period has seen the following indicative developments:

- The British Film Designers Guild's Planet Positive Award launched, which recognises practitioners championing environmental sustainability in their work⁶.
- The Global Production Awards at the Cannes Festival⁷ added the categories of Sustainable Production for both scripted and unscripted content.
- The Eisvogel Prize for Sustainable Film Production launched in Germany⁸.
- The Federal Association of Green Film and Television Consultants established in Germany⁹.
- The Association of Green Film Consultants established in Austria¹⁰.
- Five EU countries (Germany, Austria, Hungary, Switzerland and Portugal) have begun to offer training for sustainability practitioners.

- Sustainable production consultants now operate in South Africa, Mexico, Colombia, India, Jordan, Uruguay, Argentina, Kenya.
- Netflix committing to decarbonisation of all productions in collaboration with local consultancies¹¹.

In his written evidence for the 2022 House of Lords Communications and Digital Committee inquiry "A Creative Future", Dr Pietari Kääpä wrote that "consolidating the role of the green steward/ consultant as a key part of the managerial structure of media production [...] is vital for initiating wider cultural change in the industry. [...] Professionaling the role of green production consultants would contribute to enhancing the brand of the British creative sector as socially responsible enterprise and solidify the Government's commitment to Net Zero[.]"12 The 2024 Screen New Deal: Transformation Plan for Wales recognised the importance of the sustainability department to realising the green transition in film and television production and called on decision makers in the industry to "establish and fund a scalable [...] eco department with a team of skilled sustainability professionals dedicated to actioning sustainability objectives across the production." The Transformation Plan highlights the importance of skilled environmental professionals for generating and disclosing quality data on productions' environmental impacts, and the potential of these roles to "provide new skills and career opportunities[.]" The Plan identifies a skills gap around environmental roles and recommends funding be provided for training and upskilling support.

Despite these developments, sustainability departments in the UK are in something of "Wild West" period, lacking a wide range of standardisation and professionalisation mechanisms enjoyed by established production departments and roles: including institutional recognition, training pathways, and professional networks. As this report shows, these gaps have implications both for the function of sustainability practitioners within the industry's green transition, and for these practitioners' working lives and their wellbeing.

5 <u>earthangelsets.com</u>

⁶ https://britishcinematographer.co.uk/british-film-designers-guild-unveils-planet-positive-award-contenders/

⁷ https://www.globalproductionawards.com/ 8 https://eisvogel-filmpreis.de/en/home_en/

⁹ https://bvgcd.de/

¹⁰ https://www.vgfca.at/

¹¹ https://variety.com/2023/tv/global/netflix-elite-lupin-sustainability-decarbonizing-1235564104/

¹² https://committees.parliament.uk/writtenevidence/110965/pdf/

This report offers a pilot study of the sustainability department in UK productions through the case study of the country's first consultancy, Neptune Sustainability Ltd. It brings insights on the following:

- Structure and function of the sustainability department within production.
- The remits, responsibilities, and contributions of department roles.
- Key skillsets for department roles.
- The main challenges facing practitioners.
- Motivations and rewards for role holders.
- Future career prospects for practitioners.
- Recommendations for steps to be taken by industry organisations to support the development and professionalisation of the sustainability department in the UK.

1.2 Methodology

The report is based on one-hour semi-structured interviews with 11 current and former workers for Neptune Sustainability Ltd, a UK-based company providing sustainability services to the film and television industries. Neptune's employees and freelancers employed through the company work mainly on UK-based feature film and high-end TV productions for the major transnational streaming platforms: Netflix, Amazon MGM, Disney, Warner Bros Discovery, HBO and Apple TV+. In addition, the company collaborated in non-set production projects with Film London, the British Film Commission and the Torino Film Lab. Interviewees include Neptune founder Louise Marie Smith, 8 in-house workers and freelancers managed through Neptune, and 2 former employees who have since moved on to other roles, one within and the other outside film and television. The report thus offers an in-depth look at one common model for sustainability department workers in the UK and offers a way toward necessary further investigation of other models, eg in-house workers for UK broadcasters.



2. Overview and structures

2. Overview and structures

2.1 The Neptune model

Neptune was founded as an environmental consultancy in 2006 and since 2012 has been working exclusively with film and television productions. The consultancy works on UK film and high-end TV productions for transnational streaming platforms: including Netflix, Disney, HBO and Apple TV+. In addition, Neptune is involved in a range of sustainability-related projects in the UK and EU such as the Torino Green Film Lab¹³ and the Grid Project¹⁴.

As a commercial consultancy, Neptune obtains projects via bidding. The consultancy agrees a fee for an agreed number of billed work hours and set of deliverables with the production or the streamer commissioning the production. The deliverables can differ substantially between productions but normally involve obtaining a certification (most often albert or the Green Production Guide) and producing documentation measuring aspects of the production's environmental impacts. In the absence of an environmental standard for screen production, or standardised pay for sustainability roles above the PA level, every bid is negotiated individually and the resulting work remit and conditions for the sustainability department also differ.

Neptune is headed by a sustainability manager or consultant, Louise Marie Smith, and directly employs a number of sustainability coordinators, each of whom might work on several productions at a time. Neptune additionally recruits and manages sustainability production assistants (PAs) who are hired directly by the production. PAs may progress to coordinator after working on 2-4 productions and may be hired by Neptune as in-house workers.

 "We're hired by our production to oversee that person. So we hire them, we vet them, we train them, we manage them. [...] But the direct pay comes from the production company, like it does for every other crew member."

Neptune's preferred structure for a sustainability department, which is ideally but not always put in place via the bid, includes a hierarchy of a consultant, coordinator, and one or more PAs. More than one PA per production is rare but may happen on productions with multiple units.

- The consultant liaises with the studio and leads on planning the sustainability strategy for the production, provides administrative and logistical services and support (hiring and assigning PAs to productions, managing pay) and acting as oversight and a source of additional support and expertise.
- The coordinator role is focused on data collection, tracking and analysis. Coordinators maintain an overview of the production, liaise with other heads of departments and propose and negotiate solutions and interventions to reduce production impacts. This role is responsible for meeting certification goals and submitting the final report to the certifier. This is chiefly an office role that manages the set-based PAs and determines daily goals and tasks for PAs to carry out independently. There is no standardised pay for this role and coordinators' pay is agreed on in the bid, often depending on studios' internal policies.
- The PA works mainly on-set, dealing directly with waste streams and acting as the coordinator's eyes and ears and as a hands-on presence that directly liaisons with the crew during filming.
 A major element of the role is visibility, communication and persuasion, driving crew behaviour change. As an entry level role, PA work

frequently serves as training: the lack of training for sustainability department roles (discussed in depth in Section 5.3) means PAs often have no experience in sustainability or indeed any production work. An experienced PA past the training stage frees up the coordinator to deal more in-depth with the production process, its data patterns and priorities. PAs are hired directly through the production company and are paid BECTU rates.

"The PA level is entry level. You would expect to do a few shows as a PA. And this is really finding your feet in what production means. [...] they're basically our eyes and ears. So they can run and have a conversation, they're a physical presence on set, they are part of the crew, they're hired by the crew on the crew payroll. [...] The coordinator is slightly more desk based. And still will have some direct interaction and go into the set. They manage the PA and help train the PA. They are much more data based in terms of paperwork, so they're gathering data all the time and feeding it back."

In practice, for budget reasons, many productions employ only the consultant and one additional worker, who may have the title of either PA or coordinator regardless of the actual work they then do within the production. While viable in smaller projects, in the feature film and HETV productions handled by Neptune, having only a partial team without a clear division of labour can render the department less effective. This is due to the scale of the work and the frequent need for greater or more specific expertise in a more complex production.

- "[F]or a PA [...] a lot of it is managing the waste side of production. [...] And then it was going round and talking to crew about various different things and physically reading the generators as well [...] coordinators will often sit with the production team. So they'll know a lot more as to what's going on day to day within the production. It's a lot more senior kind of thing. And it is more of a desk role, and the coordinator will tell the PA if they need help with anything and basically tell them to do it, assign them tasks around the day."
- "[The coordinator] will do a lot of the office heavy admin work [...] If she needs something from me [as a PA] it's useful for her to have me at the studio where it's all going on. Quickly communicate with people and sort things out and just keep her up to date. And yeah, we do sort of work together, but she'll give me a task, let me get on with it."

Ideally, a PA would be ready to assume a coordinator role after 3-4 productions, and interviewees who have made the transition confirm that this was a smooth process for which they felt ready. Career progression above the coordinator level is seen in a different light, however: interviewees largely expressed uncertainty about their next career steps and whether the manager or consultant role is a natural progression. The report discusses this more in-depth in Section 7.

2.2 Getting into the job:

"You end up with this real mishmash of backgrounds. Which can be useful when you work, you have the opportunity to collaborate because you pick up things that you wouldn't have necessarily done before."

Other than the sustainability coordinator training newly launched (April 2024) by Media Cymru | University of South Wales in partnership with Severn Screen, the UK currently has no training for or defined pathway into sustainability department roles, or for environmental management of screen media production more broadly. Interviewees came from a variety of

¹³ https://www.torinofilmlab.it/labs/green-film-lab

¹⁴ https://filmlondon.org.uk/latest/green-filmmaking-the-grid-project

professional and degree backgrounds that can be roughly divided into screen industries (film and media degrees, industry experience), science (biology, environmental management) and project management. Interviewees were either directly approached and recruited by Neptune for their roles or applied as part of a scattershot approach applying to many film and television jobs. Only two interviewees had previously been aware of the existence of sustainability roles in film and television: others describe themselves as "stumbling into" their roles. Notably even interviewees with some experience elsewhere in production reported that sustainability department work is different to every other role they had worked.

The mix of different backgrounds is largely seen as having benefits in a role that is essentially transdisciplinary, both scientific and creative.

Creative work and the desire to work in the screen industries were the most common motivations mentioned by interviewees for going into the role. For most there was also an underlying interest in sustainability, although this tends to be seen more as an added value for the role than the main motivator.

 "I really wanted to work in scripted television, so anything I could find was really interesting. But then bonus it was sustainability, which I cared about."

The sustainability department provides a way to combine the pursuit of a personal passion – creative work in the screen industries – with a sense of purpose and contributing to an important cause. Interviewees speak of a sense of discovery and growing commitment to environmental issues that in turn strengthens their interest in and satisfaction from their roles.

 "I probably would have taken a job in any department. But, since I have got involved, I've become a lot more passionate about it. [...] And I love the job. I really think it's tremendously worthwhile. Because it's great to be working on film and you get to see and do some pretty cool stuff. But the fact is that I do think our job is incredibly valuable."

For interviewees coming from a science background, their role provided an unexpected and welcome opportunity for a creative career very different from more conventional STEM jobs. By their nature, sustainability roles in production can serve as bridges both for STEM backgrounds into the industry and for industry graduates into STEM careers.

 "I knew I wanted to do something practical or creative or some more applied version of a biology degree. So as soon as I had this role, I was thinking it was sort of the perfect cross between my interests."

2.3. Work conditions, hours and pay

The location and times of work differ between coordinator and PA roles and between stages of production. PAs largely work on set with and during filming hours: as in other roles, this means often working long hours, nights and weekends, and commuting to different locations. Interviewees noted this as a challenging aspect of the role, but one that was normal for the industry. As noted in Section 2.3, sustainability department PAs are hired directly through the production and are paid according to the BECTU rate card for PAs.

The coordinator role is meant to be more of an office-based or working from home role working 8-9 hours a day, although in practice coordinators may spend a lot of time on set, especially when not having a PA attached. Coordinators' workload differs between production stages, with planning and meetings in preproduction and data collation and analysis in wrap being the busiest times. However, coordinators usually work across several different productions and these productions may all be in different stages. Interviewees describe the coordinator role as much more flexible and less demanding in terms of schedules and travel. Coordinators are employed by Neptune and are paid a rate agreed with the client: no rate card or standard exists. Louise Marie Smith notes that the pay and hours are a barrier to attracting trained professionals from the field.

• "The sustainability coordinator role is meant to be more of an office-based role. So you're meant to be more tied to the 8:00 to 6:00 PM. But because we manage individuals on productions and we manage or coordinate efforts on productions you're often tied to production timings at times. So if they're working a night shoot you might have people trying to reach you during the night or on the weekend or whatever it may be. Less so than if you were actually the PA on the ground where you would be working to hours so. But still, you're sort of spread across multiple [angles] and multiple days and timings and things like that all the time."



3. Remits and responsibilities of department roles

3. Remits and responsibilities of department roles

As noted, the work of the sustainability department can vary widely between productions depending on the agreed deliverables and on the production's steer and priorities. Often productions are focused on documenting either material waste (recycling and bin management, catering, water) or CO₂ emissions (increasing electrical efficiency, green energy and transport). Other significant factors shaping what sustainability work looks like within a production include:

- The certification the production is pursuing and its requirements.
- The commissioning streamers' priorities and internal protocols.
- Division of responsibilities between sustainability and other departments, eg Locations, Electrical.
- The degree to which senior producers support greening efforts and are willing to allocate resources, such as a departmental budget.
- How producers and crew understand the work of the sustainability department, and thus the expectations that role holders meet.

Since many productions do not employ the complete team of consultant, coordinator, and PA, and may instead have a single worker doing some aspects of both PA and coordinator work, it can be difficult to separate out the responsibilities of each role. The distinctions laid out in this section again largely reflects ideal conditions as interviewees describe them.

3.1 Within the production process:

Ideally, the sustainability department would be involved from the very beginning of the production process: the earlier, the more it is possible for the department to consult on greener alternatives to filming plans that may be difficult or impossible to change later (eg planning location choices or filming order of scenes to reduce travel).

3.1.2. In the pre-production phase, the consultant or coordinator participates in production meetings and meets with the other heads of departments to establish working relationships and understand the characteristics and needs of the production. The department begins researching strategies and options to reduce the environmental impacts of the production with a mind toward the requirements of the certification pursued.

 "At the start it's a lot of research, talking a lot with the different departments and establishing relationships with them and what they do and don't do and just trying to find opportunities [...]
 And then doing the research to recommend what would be the best way to implement something a bit more environmentally friendly."

3.2.2 In the production phase, the coordinator and PAs follow the daily progression of the production. They supervise and troubleshoot the execution of agreed plans and continue to propose actions and alternatives that would reduce impacts. This involves understanding different situations' needs and requirements, researching options and their attendant costs and benefits, and putting together proposals for action. The proposals are taken to the relevant head of department, unit or line producer, or higher up to the studio or commissioner, and may or may not be approved.

The sustainability department continues to work as closely as possible particularly with location/unit and electrical, but ideally with all production

departments to both proactively point out issues and opportunity to improve and reactively answer queries. The work is characterised by real-time problem solving and providing answers to changing needs and circumstances.

 "When things obviously don't go to plan and things change very quickly, just trying to make sure that the things that you've set up in prep are still appropriate throughout the production."

Department responsibilities during production fall under the categories of data collection, communication and advocacy, and supporting crew in employing new technologies and kit.

• 3.2.2.1 Impact data collection. The sustainability department collects a range of data on the production's use of energy and resources, and the resultant waste streams including CO. emissions. This includes collecting set generator readings; fuel use and mileage on transport; food waste; specific waste associated with different departments eg set construction, costumes, makeup; water usage; electronic components and waste from filming and editing equipment; office energy use and waste. Data may also be collected on amounts and types of waste recycled and amount of waste and emissions prevented by changes in practices. The remit and focus of data collection depend on the production's priorities: interviewees point to an overall trend toward more focus on energy and CO₂ emission data.

Data is obtained both directly, through reading generators and weighing bins, and indirectly through reports produced by or queries sent to other departments. Access is not always a given and interviewees speak of having to often chase up crewmembers for data such as vehicle mileage. Data is collected in logs and spreadsheets that may be designed and provided by the consultancy or by the production itself: no single standard format exists. In additional to collecting the data for filling in the certification, the sustainability department may be called on to provide interim reports to the production or fill additional, separate documentation required by the commissioning streamer.

In addition to providing data for certification and for the production's own record, the data collected by the sustainability department may be used by the studio, the commissioning streamer, or by the consultancy to track trends and establish best practices across productions and projects. While data collection may be

shared with other departments, such as electrical or locations, the sustainability department provides an overview of the whole production and is a crucial channel providing on the ground data to any organisation or project measuring industry impacts.

In a full department employing a consultant, coordinator and PA, the PA would be doing the on-set work of supervising bins, recycling, and water fountains, and sometimes assist in generator reading. The coordinator would collate the data, track the production's progress, and compile reports. The consultant may be responsible for submitting the final report to the certifying body.

- "A lot of my job is to make sure that I'm communicating with [the production and vendors] and getting statistics [...] I'm getting the weight per waste stream, how much we've diverted from landfill and making sure that's all tracked so that can go to [the streamer]. And similar with water."
- 3.2.2.2 Communication, engagement and advocacy with crew. This aspect includes a range of actions informing the crew of requirements: sharing information and educating on environmental impacts, challenges, and best practices; advocating for sustainability values and behaviour change; engaging the crew to generate interest in sustainability efforts; and communicating the production's achievements internally. The department's work begins with meeting with other departments to explain their work and goals and to bring others on board the production's sustainability strategy. Practitioners put up signage that informs, directs, and advises the crew on green actions such as ensuring vehicles do not idle, as well as engaging in day-to-day conversations with crewmembers to answer questions, explain requirements and new practices, and advocate for behaviour change. The sustainability department creates and circulates documents such as declarations of a climate emergency, newsletters about the production's environmental state of play, and final presentations celebrating positive impacts made. Finally, the department may design and deliver more creative engagement activities such as guizzes and challenges, which aim to raise the crew's environmental awareness and make crewmembers more involved with and supportive of the production's sustainability strategy and additional sustainability efforts.

3. Remits and responsibilities of department roles

In this capacity, the sustainability departments act as embedded advocates for green production and behaviour change: several interviewees described seeing themselves as the "voice/face of sustainability/the environment" on the production. This is a significant element of the sustainability department's work that inflects all other work, since everything else the department does – from data collection to introduction of new solutions – depends on crew cooperation and engagement. Sustainability department roles are, before everything, science communication roles.

Although this information is not collected systematically, the sustainability department also encounters crew attitudes and opinions on sustainability and receive (sometimes unsolicited) feedback on how promotional and educational efforts and regulatory frameworks are translated to day-to-day production work, on how tools and technologies are used (see next section), and on technical, logistical, and attitudinal barriers to change. Combined with their data collection role, the sustainability department act as a crucial juncture in communication and the flow of knowledge and insight between productions. studios and commissioners, certifiers and other industry bodies and initiatives, and sustainable production researchers, educators and advocates.

PAs are heavily involved in communication work, since they serve as the face of the production's sustainability efforts to the crew on set. Visibility is usually significant to productions' expectations of PAs, which results in considerable pressure to invest time and effort into this part of the role. In this sense, it is useful for a PA to take on the bulk of work setting up signage, creating documents and engaging in day-to-day conversation and advocacy, and free some of the the coordinator's time to focus more on the non-crew facing aspects of research, implementation, and data collection and analysis. Nonetheless, it is imperative that the coordinator is also a wellknown face to heads of departments, as they are able to have more technical conversations on fuel and energy use and reduction. Science communication penetrates every aspect of every role-holder's work, whether consultant, coordinator, or PA.

 "There is this fun creative side of the job as well where it's getting people involved and getting people excited about it and pushing forward events. We did stuff for London Climate Action Week [...] we did a win a tree thing. So somebody won a tree and we planted some trees. [...] So planning creative ways to make people join in with things and be more aware and not just make it all seem like doom and gloom."

- "[Productions] like to see crew engagement and like to see that you're making yourself seen on set and giving guidance and the education that you're there for."

• 3.2.2.3 Introducing and supporting new kit.

The sustainability department researches and introduces new technologies and equipment that may be useful in reducing production impacts, eg low carbon technologies to power sets and facilities such as battery and hydrogen technology to replace diesel generators, or switching vehicles to hybrid or electric. This is done both reactively, in response to specific needs that come up during production, and proactively in pursuit of impact reduction. Bringing new kit on set involves researching technologies, finding vendors that provide suitable kit and putting together a proposal to convince producers to make the hire, liaising with the vendor to procure the kit, and working with relevant department to put it to use. While directories of green vendors such as provided by albert are useful, finding vendors remains workintensive. Practitioners frequently carry out further research in order to develop and maintain relationships with many companies already working within film and television and those entering the space for the first time to pair tools with productions' needs. Some interviewees report further keeping up with sustainable technologies trade press to remain up to date on relevant new developments. Since the sustainability department rarely has its own budget to put into kit hire, practitioners may need to put significant thought and effort toward persuading the production to make the investment.

Once the kit is on set, the department's role shifts to supporting its integration and assisting the crew in learning how to use it effectively and confidently. Finally, the sustainability department would often continue to monitor the kit and collect data on its utility and impact, which they may then feed back to the vendor – providing a degree of oversight and contributing to the further development of these technologies.

In this capacity, sustainability practitioners act as crucial advocates for and liaisons with new vendors and businesses offering greener kit and services. They also act as agents of broader behaviour change through working with crew members to build their confidence in experimenting with new equipment and easing the way for the introduction of sustainable technologies. As part of researching and compiling proposals, sustainability departments amass a great deal of data on various vendors, equipment and materials available in the market, their comparative costs, specifications, and benefits. Over time, practitioners gain useful experience in handling new kit, evaluating its impacts and teaching its use to others.

Coordinators, using their greater expertise and experience, take the lead on researching and proposing new kit with support from the consultant, who may assist in writing the proposal and advocating for it with the production. PAs are more involved with on-set implementation and support. However, bringing in new kit is a significant enough aspect of the sustainability department's work that even early career PAs are often called on to carry it out: several interviewees describe being "thrown into the deep end" in finding, evaluating and booking new vendors.

- "We have contacts with various companies, we can point them in the direction of those. We advise, we persuade them to use that kit, and we can come up with solutions where we monitor that, we can get the kit for them then we monitor how the kit is used and we show the production in terms of the environmental and financial statements that it can bring them."
- "It's a lot of internet searches, finding people on LinkedIn and trying to connect with them and trying to find specialists in each sort of little area of sustainability that we look at."

3.2.3 In the wrap stage, the focus of the department moves to collating and analysing the data collected during production and producing outcome reports that record achievements, document best practices, and point toward areas for further improvement. Usually these reports have three recipients: the certifier, the production studio or streamer (or both), and Neptune itself. The department may also produce a document aimed at the crew to celebrate the production's collective environmental accomplishments. In a full department, the coordinator would lead on compiling the reports with support from both the consultant and PA, though the consultant may be ultimately responsible for submission to the production and certifying body.

An additional wrap task is often to find disposal solutions for production assets and any leftover materials, eg sets and construction supplies, costumes, props, and makeup supplies. This may involve finding and implementing recycling solutions, disposal of hazardous materials, and organising charity and community donations, which may entail physically travelling and transporting goods to new locations. Charity and community work is usually led by PAs and was highlighted by interviewees as a favourite task as well as a good way to engage crew and demonstrate tangible, rewarding outcomes.

"[I]t was really fun delivering really successful clothing drives or charity drives.

Because they've become a kind of culture on set that's really positive and everyone's kind of having fun with it and saying, oh I donated or I did this, and you're the person that comes back to."

4. Role skillset

4. Key skills for sustainability roles

Questions about the skillset required in sustainability department roles reveal a complex picture that emphasises the uniqueness of sustainability department roles within the film and television industries, and the challenges faced by practitioners from both production and sustainability backgrounds. The skills highlighted by interviewees fall under the following categories:

• 4.1 Knowledge of environmental science. Neptune manager Louise Marie Smith stresses the advantage of background in science and argues that sustainability department roles are environmental management roles first and production roles second. Other interviewees from a science background echo this opinion, saying that a science degree is helpful and makes progression from PA to coordinator easier. However, the skills that emerge as necessary are more those of numeracy and ability to handle data, than an in-depth understanding of climate and environmental science. Some knowledge of the science of the climate and ecological crisis, and especially being up to date on environmental news, were noted as important to developing confidence and communicating and advocate effectively with production crews. For many interviewees, the sense of having some scientific expertise serves to assert themselves in their role and to push back against challenges from crew members.

"It's always good to be up to date with things that are going on environmentally, because again, you can use that with your communications with like the crew and mobilise it that way."

- Keeping up with climate and environmental news and new sustainability technologies is noted by several interviewees to be an essential part of their role, which they pursued whenever time on the job allows. In addition to gathering information on new practical solutions that can be deployed on-set, this is done to be able to answer questions and challenges from crewmembers and to advocate effectively for sustainability on set.
- "I have found that reading the news [...] really has helped me, because I can answer people's questions. [...] just about things that are going on in the world, like heatwaves and wildfires and things like that. It's really good to have knowledge on actual incidents and be able to support what you're doing."
- "[F]ollowing environmental news so that you're well read and you can communicate to crew members what's happening in the world. I think that's quite an important part of the role. And then also staying up to date with clean energy technology. So there's always a new product or a new company that's popping up or developing a new tool."

• 4.2 Data literacy and the ability to work with complex spreadsheets and analytic tools is a necessary hard skill for making real impacts: "the numbers are what really count at the end of the day." Numeracy and a degree of statistical and mathematical skill are important especially for coordinators, whose work focuses on tracking production impacts, identifying trends and opportunities, and producing reports, as well as submitting data for certification and using carbon calculators. Interviewees note that these skills are also useful for understanding financial information and making a convincing budgetary case when proposing the hire of new kit or a different way of doing things on set.

- "[D]efinitely basic math. You need to be able to do stats at a very basic level [...] but being able to calculate a cost premium or a fuel savings or something like that, you need to be able to do."
- "You need to be somebody who can be aware of, how to properly fill out the spreadsheet and calculate things and measurements as well."
- "The data collection as well, I think you've got to have some kind of awareness on that front. I think I did a lot of like data analysis and data collection at uni and report writing. And so a lot of those things translate quite nicely into this role. Cause you are collecting often a lot of quantitative and qualitative data, being able to understand and look at that data and realise what it means and what that tells us about the production."
- 4.3 Technical skills: Interviewees identify electrical skills and knowledge of generators, batteries and energy technologies and types of fuel as a crucial set of skills in which a gap often exists. The increased focus of sustainability departments on reducing greenhouse gas emissions makes energy on set the "mothership" of concerns, yet access to relevant training is limited and costly. The issue runs through all levels, from limiting consultants' and coordinators' ability to integrate green energy into a production's sustainability strategy, to obstructing PA efforts to advocate for and troubleshoot the use of new kit, such as batteries, on set.

Interviewees additionally mention challenges presented by lack of knowledge on materials and on recycling and disposal, eg not knowing how certain materials on set can be repurposed.

However, that gap can be filled by calling on outside experts – whether other sustainability practitioners with relevant experience or connections, recycling professionals, or even volunteer and hobbyist groups with the relevant knowledge or interest. Electrical systems, conversely, are a field in which interviewees claim a degree of personal skill is irreplaceable

The sustainability department on set often works closely with the electrical and lighting department due to the shared concern with energy. Within those relationships, the training and expertise of electrical professionals means they are difficult for sustainability practitioners to challenge or negotiate with. Here as everywhere, practitioners are called upon to prove their ability and justify their presence on set, as well as to ease the way in for new kit that experienced crewmembers may be suspicious of. The skill gap around electrical systems is thus a fatal flaw that tangibly limits the effectiveness of the sustainability department.

"Because we don't have an electrical background or electrical training, there's a lot to learn on that side and there's only so far that we can advise on applications in that sense. [...] at the minute we're coming at it more as an outsider. And I think that can sometimes cause conflicts because those departments are professionals. They obviously have training with electrical systems. So if they say it's not gonna work, we're stuck in this position where we don't know how to make it work[.]"

4. Role skillset

4.4 Set and industry experience: Opinions
 on the importance of this varied between
 interviewees. In the prevailing view, an
 understanding of how a set functions, the
 different role-holders and departments, and
 industry terminology and dynamics, were all
 brought up as critical knowledge. Reaching out
 to and working with vendors and suppliers in
 particular was mentioned as a daunting task for
 newcomers to the industry. Similar to the lack of
 electrician training, a lack of understanding of
 production is a weak point for practitioners'
 confidence and ability to assert themselves
 when proposing changes.

Nearly all interviewees mentioned the importance of gaining a sense of practicality: the ability to judge whether ideas are worth proposing and to choose one's battles in making proposals. In addition to the technical aspects of what changes and solutions can be implemented in the conditions of a set, this means an understanding of what would be perceived by others within the production as practical: what proposals are likely to be accepted and how far the sustainability department is able to push a change in behaviour or kit. Interviewees' experience mirrors scholarly research into exceptionalism in the film and television industries (eg Caldwell, 2008, Mayer, 2011): the sense that production is different to all other industries and has limited if any use for insights and expertise from outsiders. One aspect of practicality is taking into account and working within such industry idiosyncrasies and conceptions: according to Louise Marie Smith, "[I]f you don't understand how the film industry works, you'll get absolutely nowhere. You have to speak their language."

- "If I'd worked on a set before and had understood the production processes beforehand, I could maybe have pushed back a bit more and asked for more things to be changed, 'cause I could have argued with it."
- "I learned essentially how to work on a set. How a set functions. All of its different heads of departments and all, everything that they are responsible for, and everything that each of those departments relates to in terms of sustainability. [...] learning the entire picture and then all of the little details[.]"

- "[Lack of industry knowledge] was definitely one of the biggest challenges on my front because I hadn't worked in the industry before and you kind of get thrown in. And then there's all this different terminology and all these different nuances and dynamics in the industry that are so niche to the industry that you just don't hear these things in any other job."
- 4.5 Science communication and diplomacy:

"[l]t's basically a science communication role. You're trying to make the science behind what we're doing accessible to everyone on our production."

The skillset most frequently mentioned and lengthily discussed by interviewees is communication and the ability to persuade crewmembers to try new behaviours and technologies without causing overwhelm or offense. Some certification requirements, eg albert's ban on domestic flights, are non-negotiable, so that related actions and changes can be relatively easy and straightforward to demand and enforce, although may still require calling on the producer's or studio's authority to guarantee crew cooperation. Otherwise, the sustainability department's ability to introduce any changes largely depends on the degree of support provided by producers, so that practitioners must often engage in complex negotiation and diplomacy. Interviewees speak frequently of the need to choose their battles and of the compromises necessitates by the need to maintain good relations with the crew.

- "[Y]ou have to choose your battles very much with these departments, this one's going to work, this one isn't. And you have to keep them on side, otherwise you become a very hated person when it comes to most people." The skillset involved in such negotiation can be broken down into the following:

- Empathy: "I had to just learn that everyone has their own way of doing things and kind of find ways to discuss alternatives without stepping on any toes."
- Friendliness: "[Y]ou have to come in gentle with people and be encouraging all the time."
- Patience: "You can sometimes feel like maybe pushing too hard, or someone's really busy, but you really need to get something in or get some statistics. And you've got to learn to manage how you come across and how you speak with people. So it's communication and people skills and patience and not getting too intense about something."
- Flexibility: "There's a lot of communicating with departments, suggesting, but not being too strict about them maybe making a change or thinking, trying to think about stuff differently."
- Enthusiasm: "You've got to be a personable person I think. You've got to build good relationships with people and then people want to help you. I think being able to engage crew and show your enthusiasm without being overbearing."

Another challenge can be striking the correct balance between providing information and guidance, and making experienced crewmembers who are professionals in their own fields feel respected and capable: creating a learning process that is enabling and allows crewmembers to integrate new ideas into their existing expertise, so that they feel able to continue implementing those ideas on their own.

"You don't ever want people to feel like they're stupid for not understanding, which is why I think a lot of the maybe older lot, because they don't get it as much, they've not heard it as much, they just want to throw fun at it [..] because they don't understand it."

The emphasis on communication, negotiation, and hands-on support reveals sustainability as a set of roles profoundly concerned with advocacy, and in this capacity crucial to promoting the green transition in the sector. Without robust legal or regulatory frameworks for sustainability in the screen industries, any greening efforts are entirely dependent on the goodwill and cooperation of a given production. The sustainability department are at the front line of securing this goodwill, not only for one production at any given time, but also for any future production on which crewmembers might work. Interviewees stress the importance of being helpful, supportive, and available to crew and their role as "trying to help them in whatever way we can to make it easier for them." The sustainability department supports crews through challenging new experiences and eases the way in for new technologies and practices, acting to "grease the wheels" of the green transition. Some of this advocacy is explicit messaging on sustainable and green values, as in the creation of newsletters, engagement events etc. Yet a great deal of effort is also invested in the day-to-day work of building crewmembers' willingness to and confidence in using new technologies and practices, as well as providing hands-on assistance in learning to use new kit and advice on best practice. In effect, every sustainability department practitioner also acts as a sustainability trainer.

The resulting relationships with crewmembers are complex and emotional-labour-intensive and comprise the most challenging aspect of practitioners' work. As further discussed in Section 5.2, sustainability departments must often work with crewmembers who have never encountered the concept of sustainability before or are reluctant to change long-ingrained habits in the highpressure environment of a production set. Negative responses and lack of cooperation often originate not in hostility to sustainability as a concept, but in crewmembers' worries over being told off for unsustainable practice, or over needing to make sudden and sweeping changes. To be effective, practitioners must act as the friendly face of the green transition - a task that can be challenging for people whose passion for their field can mean feeling the need for that transition urgently.

"As somebody who really cares about the environment you have this really idealistic goal of what can be done. [...] And it's not always practical, it's not always realistic. [...] But you do kind of put on the brakes a little bit and be like, hang on, what is practical and reasonable to expect someone to change about the job they've been doing for a very long time."

4.6 Resilience and tenacity. Along with the
ability to be diplomatic and supportive to enable
processes of behaviour change, interviewees
stress the need for persistence and emotional
robustness in the face of frequent pushback.
According to interviewees, most of their
proposals are rejected on the first try and many
still meet refusal even after extensive efforts to
adjust and reframe them. Practitioners must
remain resilient and passionate in the face of
such commonplace failure, and to be ready to
anticipate pushback and offer alternatives.

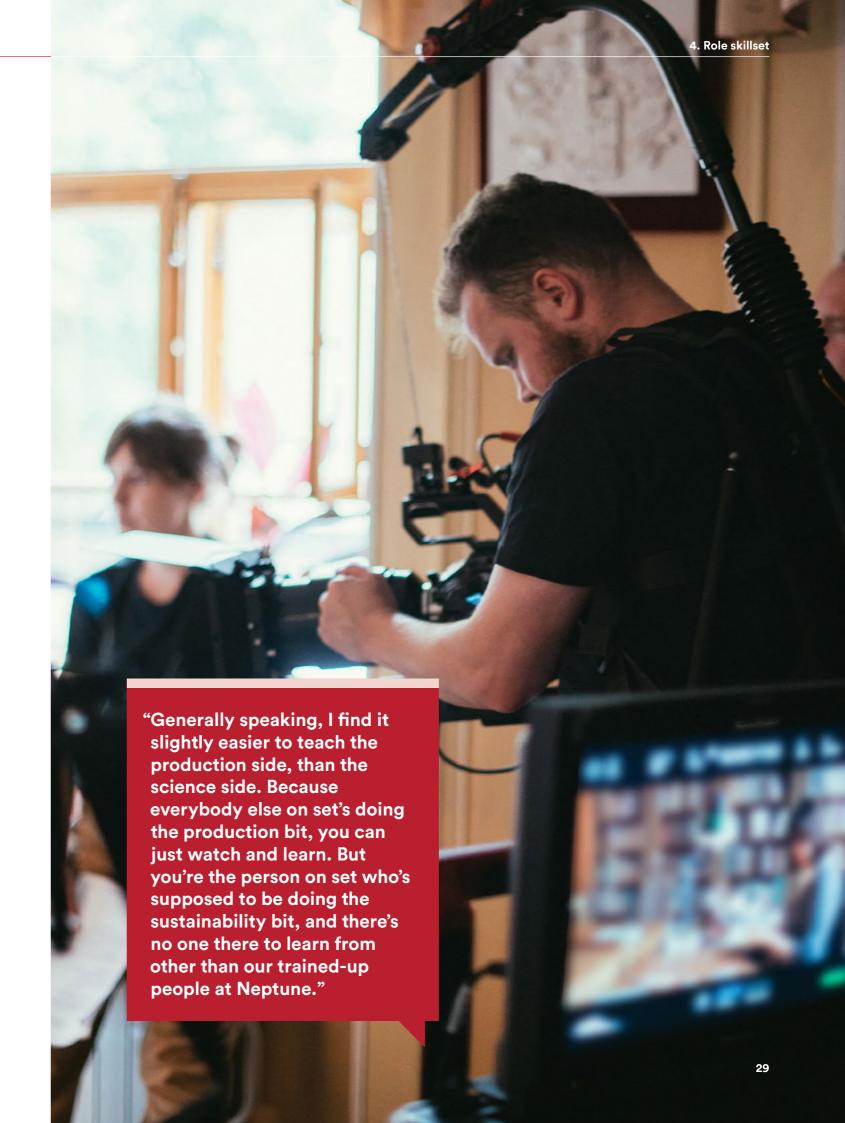
In addition to being key to the particular challenges of doing sustainability work, such a can-do attitude and ability to work under pressure are noted by interviewees as especially characteristic of work in film and television production. Adhering to this work culture, showing one's ability to be practical, adaptable and fast-moving at all times, plays a part in practitioners' ability to assert their right to be on the set and belonging within the production. Once more, alongside the work of performing their roles, practitioners pull double duty as ambassadors and advocates for themselves and for sustainability as a concept.

 "Never take no for an answer. We hear no a lot and first responses are often no. So you have to keep working away at those answers and finding a new angle. And I guess resilience trying to find a way to solve the problem so

- that it still works for the team, the individuals who have been working in this industry for like decades."
- "Tenacity I think is really important. There's a lot of no that you have to turn into a maybe or a yes. Anticipating the questions. So if we take a solution, I have to anticipate the first three questions and have the answers ready. And I also have to have a Plan B and a Plan C. So resilience in a plan and ability to quickly update a plan[.]"
- 4.7 Acquiring key skills. While there was broad agreement between interviewees on this list of key skills, some disagreement emerged around which skills were hardest to acquire and thus which needed more training focus and support. Opinions largely depended on interviewees' backgrounds: perhaps unsurprisingly, interviewees with a background in science considered scientific understanding and data literacy to be the more challenging skillset for new entrants to learn, while those from a production background stressed the importance of industry experience and know-how.

Interviewees involved in recruitment note that PAs with a science background tend to progress faster than those from a production background, and interviewees from those science backgrounds did seem to report an easier learning process: they also appear to have felt confident of this aspect of the role already after their first production experience. Louise Marie Smith makes the argument that scientific and data skills are more difficult to acquire since there is no one else in the production able to teach them to new entrants.

While environmental management skills are arguably more difficult to learn and require more support, understanding of production work emerged as most vital for the communication and diplomacy skills that all interviewees agreed are at the heart of sustainability department roles. Interviewees' experiences points to the need for a flexible approach to training for sustainability department roles, and to the importance of creating a shared baseline in order to avoid potential conflict between practitioners from divergent backgrounds.



5. Key challenges

5. Key challenges

5.1 Lack of role standardisation

"It's quite hard to know what the expectations are. You have certain deliverables that you have to do, you got certain things like certain data that you've gotta collect, certain reports you've gotta write, certain information you've gotta send off to certain places. Which is, you're told at the beginning, this is what we want. So there's things that you need to do, but then again, there's a million other things to get to those places."

The challenge most frequently raised by interviewees was the lack of standardisation of sustainability department work and roles. At the moment, alongside the lack of standard definitions of what a "sustainable production" looks like, the UK industry lacks any standardised description for sustainability department roles that detail expected responsibilities, required skills, or payment rates. As a result, what comprises the work of the sustainability department, and the expectations productions have from role holders, can differ substantially between productions. As noted in Section 3, every production is different and the parameters and work responsibilities are

individually negotiated: this includes the deliverables (different certifications, different documentation to produce), production priorities (different data to collect and impacts to focus on mitigating), the presence or absence of a budget, the division of responsibilities with other departments, the structure of the department itself, the number of hours and rate of pay allocated to coordinators and consultants, and (as expanded in next section) the expectations and level of cooperation from crew.

This lack of established standards is challenging for the consultant when negotiating the bid with the production, which must always be done from scratch. For practitioners in all department roles, this variability raises the need to be exceptionally flexible and often assume considerable responsibility for self-directing their own work and determining day to day tasks and responsibilities. Productions often have no understanding of what is practically involved in obtaining their target certification or other deliverables, and no sense of what the department's remit and contributions are beyond this. Productions hence have no means of effectively directing or monitoring the sustainability department's work. Instead, producers and crewmembers may end up interfering with that work in a way that gets in the way of effectively collecting data and reducing impacts. Without a standard structure for the department and standard role divisions, the problem is further compounded by the common practice of productions employing only a partial team, or indeed only a single practitioner with a vaguely defined role. This leads to PAs especially shouldering an unusual level of responsibility for an entry level role, with little support available.

 "[The role titles] are variable and it usually depends on what sort of requirements the production team has or a studio has, and sometimes they don't always meet the same baseline, so you might have a sustainability coordinator on one show who provides the role of a sustainability PA or a sustainability manager on another show."

 "[I]t's different [from other PA roles] in the fact that it's more responsibilities, it's much more heavy weighted on admin, writing skills, emailing, talking to people. I haven't done as much of that in other jobs."

The lack of standardisation in production demands and ways of working has a further negative impact on the ability of practitioners to record consistent data and establish best practices. The lack of standards for what counts as a "sustainable production" is a broader problem for the green transition in the film and television industries, but it is worth highlighting how this impacts the working lives and experiences of role holders at the front lines of promoting this transition.

In addition to significantly complicating matters for new entrants, the lack of standardisation in roles and department structures continues to impact career progression for role holders due to the absence of clear hierarchies and of standards and mechanisms for professional evaluation. This is a difficult topic to explore in a study of workers in only one consultancy, yet noteworthy in how it was flagged up by several interviewees. Most were uncertain about where and how to progress beyond the coordinator level and felt that the gap between a coordinator and a consultant, in terms of skills and responsibilities, was too wide for them to approach. This is touched on further in the discussion of ongoing changes in the sector in Section 7.

"I do find a lot of people don't really understand the extent or that I'm not just taking the bins out. I'm doing more than just taking bins and putting them in the recycling bin. [...] I work by myself, I'm right now in an office by myself, nobody sees half the stuff."

5.2 Negotiating remits and lack of knowledge

While roles such as green steward have existed since the late 2000s, the concept of a sustainability department is relatively new, and the industry at large still has little experience with having a dedicated sustainability team involved in a production. The focus of initiatives such as albert has been on broader sustainability education in the industry, with little to no specific attention paid to sustainability roles or educating the industry on how to work with the department. It is not uncommon for role holders in the sustainability department to encounter crewmembers who did not even know their role existed, never mind what to expect from or how to interact with it. In the absence of standard role descriptions or certified professional training to point to, interviewees were constantly needing to explain, educate, and prove their own professionalism, and even justify the existence of a sustainability department. In addition to making it harder to work effectively, these conditions produced feelings of uncertainty and self-doubt, and exacerbated feelings of being isolated or of not being an appreciated member of the crew. For PAs especially the result was often a disheartening and devaluing first job experience.

- "On every single show that we've worked on, there's always been individuals who go, I didn't even know a sustainability something was a role."
- "People were a little bit reticent to, they just didn't understand what I was doing there. They didn't understand my role. [...] unless you came and spoke to me, you didn't know what I was doing."
- "Because sustainability is so new, people don't really know who you are or what you do."

As well as lack of awareness, interviewees often dealt with misconceptions around the scope and purpose of their roles, which could make it considerably more complex to define and follow role remits. This problem is partly due to the fast evolution of sustainability roles (see Section 7) and partly due to the gap in visibility of different tasks and areas of responsibility within those roles. On-set tasks involving supervising bins, recycling and water are visible and easily understood, and thus tend to be seen by crew as the sum of both the PA and coordinator roles. Work with new kit is meanwhile more specialised and mostly visible to the relevant departments, and data gathering and analysis work – which the interviewees themselves

5. Key challenges

see as the core of the role, especially on the coordinator level – is mostly invisible and difficult for uninvolved crew to grasp and appreciate. When practitioners are focused on this work, other crewmembers may not perceive them as working at all – a misconception that exacerbates the sense that a sustainability department bring no added value to a production.

 "[T]hey go oh, you don't just sit there all day on your laptop doing nothing. And it's like, no, I'm counting this and I'm going through receipts and I'm going and checking generators and looking at the recycling rates and all of these sorts of things."

As noted in the previous section, it is not uncommon for producers and other senior members of the production to share this same misconception and thus insist that the sustainability department focus on tasks that are more visible yet less impactful. This can become a source of tension between producers and the consultant trying to direct the work of a coordinator, or the coordinator trying to effectively use a PA.

"Everywhere has a different kind of role for green PA. So my producer on my previous job, he was concerned because I wasn't spending enough time by the bins. [...] I'm also doing stuff on the laptop, digesting information and things like that, so. But he was used to PAs who stood by bins and educated people and recycling. [...] I mean, how do you tell people about a job that everyone treats differently and is not standardised?"

The lack of standardised definitions and profiles for sustainability department roles results in practitioners having little to fall back on when correcting misconceptions or explaining how to best carry out and utilise their role to maximise impact. Instead, the sustainability department might fall under suspicion if perceived as doing things "wrong", or find themselves expected to take on aspects of the production partially or entirely outside their purview. One interviewee shared a memorable incident of being asked to provide flowers for a set after being mistaken for a greens coordinator.

 "A lot of people hear sustainability coordinator or sustainability department, and they have a very different idea of what that entails and what responsibilities those people have or what things they do." "It's not really an obvious job role [that] has an obvious description, and many people would probably not really understand what it may be."

Whether crewmembers had had a previous experience with a sustainability department, and whether that experience was positive and convincing, could make a huge difference in practitioners' ability to make an impact as well as on their personal experience of working. Previous experience with a strong sustainability department makes a considerable difference in crewmembers' understanding and willingness to engage with role holders. Overall, interviewees felt that when they were able to explain the full scope of their work and the whys and hows behind it, responses tended to be positive: many pointed to an openness within the industry to the department becoming normalised as part of a set's standard operation. At the same time, this means that every role holder within every sustainability department is under extra pressure to act as representatives and advocates for their profession as a whole. A negative experience with sustainability can cause considerable damage in creating ill will and suspicion toward the field still struggling to establish itself.

"The more crews are working with a sustainability team, that's getting more established as a department and people are used to [it], like, oh, OK, well, this is sustainability, right? OK, we know the drill. [...] establishing it as a legitimate department in industry is the thing. Cause I still meet people now that have worked on all these productions and they've never had a sustainability department."

5.3 Lack of training

"A major challenge for the green screen services sector lies in the training of practitioners such as green stewards who work with management and production crew to develop bespoke and sectoral guidelines. Currently, no established educational and career pathways exist for these crucial roles, creating a vacuum for implementing sustainability policy and guidelines on set." (Kääpä, 2022)

The UK currently offers no established training for sustainability department roles. Media Cymru | University of South Wales, in partnership with Severn Screen has recently (April 2024) launched a sustainability coordinator training scheme which is specifically for the Welsh industry. Film London in conjunction with Greenshoot previously held Green Steward training through the Equal Access Network, but these were one-day sessions limited in scope. For interviewees, the lack of training for sustainability roles has posed a number of challenges.

Neptune provides employees with some basic training, but this is bound by the limits of the consultancy's resources and time. Due to many productions' reluctance to hire a full department, PAs in their first role may be guided only by the consultant, without any coordinator or other more senior role holder to provide more hands-on and structured training: interviewees note that this can leave PAs scrambling and be a significant drain on consultancy resources. Meanwhile, more experienced interviewees who have worked as sole coordinators mention the loss of opportunity to pass on their experience and expertise.

Without a foundation of standardised training, learning for PAs and first-time coordinators is done mostly on the job. While this is not an uncommon mode of learning in film and television production, the complex and multifaceted nature of sustainability roles and the broad skillset required render it especially challenging. As noted in Sections 4.3 and 4.7, this is particularly difficult when it comes to environmental science and data management skills, where no other crewmember can step in to provide additional guidance. Structured training especially in electrical and technical skills was frequently mentioned by interviewees as key to increasing the effectiveness of their work.

- "The initial training would just be really useful to start off by explaining what it does and [...] make it seem as an appealing job. [...] I think people need to be made able to do surveys, questionnaires, spreadsheets, it would be good to get people to understand albert and then also the [Green Production Guide] system [...] Things like fuel, again, and generators. Practical things like that."
- "It can be quite a technical expertise to have. And it's not yet, because we're just hiring people who used to be production secretaries and saying, oh, they know how to fill in albert so they're a sustainability coordinator. Well, they don't actually have the knowledge to push us any further."

The lack of structured training, and of any certification, limits not only practitioners' skill levels and scope for professional development, but also their level of confidence – which is especially significant for the sustainability department due to the frequent need to explain and advocate for the importance of roles. Without any official confirmation available of their skills and expertise, some interviewees found it difficult to assert themselves as professionals. Relatedly, without certified training, productions find it difficult to assess the skill levels of sustainability practitioners and this may make it difficult to build trust, especially in cases where producers or crewmembers have had negative experiences before. According to interviewees, the absence of training leads to people coming into roles unprepared, and the absence of certification means productions have no way to assess whether a role holder is qualified or suited to the role they are hired for.

5. Key challenges

 "If there were a structure in place and training in place and you're not allowed to call yourself a coordinator without a certain level of experience and you're not allowed to call yourself a consultant without fulfilling some sort of training or level of experience, we wouldn't have [aggressive questioning]."

5.4 Crew intransigence and pushback

"I don't think there's another role in film apart from sustainability where you might go to a crew member and tell them what you do, that then they will openly question the purpose of you."

Not all resistance encountered on set by sustainability workers is due to lack of awareness, and more entrenched forms can be much harder to deal with day to day both professionally and personally. Interviewees cited the following as reasons why crewmembers might resist collaborating with sustainability workers:

5.4.1 Change aversion – "we're always done it this way"

As discussed, much of the work of the sustainability department is putting a friendly face on the green transition and dealing with crewmembers' aversion to new practices, technologies, and values. In an industry characterised by high risk and frequent failure, strong networks and a preference for known and proven collaborators, and a strict hierarchy often based on experience, it is unsurprising to find resistance to change. This resistance is amplified when change is perceived as coming from and imposed by outsiders that are new arrivals to the industry. Even when crewmembers acknowledge that a practice is wasteful and should be changed, breaking established ways of working to implement that change can still meet resistance on the basis that the wasteful is also the known and trusted.

- "[E]veryone on a crew has a specific way of doing things and it's not always the most sustainable, so some people prefer even now to ask for a generator than hook into mains just because they feel that that's more reliable." - "My job is saying to someone's worked in the industry for a lot longer time than me, can you not use this kit you've from someone that you've known for a long time that you have a trusted relationship that is cheap. And can you use this new kit from a company that you don't know, from a company that doesn't work with film. So it is a bit of challenge."

5.4.2 Exclusivity/expertise-based – "we have nothing to learn from outsiders"

A great deal of pushback comes from sustainability being perceived as an externality to the production process and the sustainability department as outsiders to the industry, whose right to be on set and become involved in other crewmembers' work is not a given. Interviewees note that sustainability departments, similarly to health and safety, are perceived as "those extra departments that cost money and take money off the screen. [...] we don't do anything that gets the shot made." The work is seen not only as unnecessary or a drain on resources, but as essentially irrelevant to producing the film or show - an invader from outside the closely knit world of production. This makes it difficult for even sustainability experts to claim to be able to teach "insiders" anything valuable.

This barrier adds a further dimension to the problem posed by lack of standardisation and professional training and support. Once they perceived themselves as experienced and knowledgeable, with a firm grasp on the function and value of their roles, interviewees were naturally better able to push back on the pushback, as it were, and remain resilient in a way that improves both their effectiveness and their work experience.

"It's just kind of like an outsider coming in. It's always difficult. There's always pushback from people. [...] I think sometimes people who have been doing their job for years and are really great at what they do, and then you have someone coming in who has not really worked in this very niche industry, they can be like okay, well, I've been doing this job for years, what do you know?"

• 5.4.3 Time/effort-based - "too busy for this"

Even when the sustainability department are not perceived as meddling outsiders, their work may nonetheless be seen as a low priority "extra" and an unwelcome additional pressure on busy and overworked crews. Interviewees commented on the challenge of stopping to consider environmental and long-term impacts in the frenetic pace of a production set, and the sense that such thinking

runs against industry culture: "[E]veryone's kind of rushing through things. But you've gotta stop and go, there's all of these things we need to be doing, let's backtrack." This aligns with overall feeling within higher levels of the industry that sustainability is a "nice to have" even when having a dedicated budget line. Interviewees remark on the importance of engagement coming from the top and mandated by producers.

- "I just didn't feel like what I was doing was their priority. Everything I was asking was an addition to their daily To Do List, which was already 50 pages long."
- "[P]eople in films, they are used to doing things a certain way and they are used to being wasteful. So everything is with film is, people work very hard and they work long hours, and a lot of times they just want the easy option. [...] So you're having to ask people to put in a little bit of extra effort when they're very tired and very stressed and under a lot of pressure."
- "I think for a lot of people, they're there to do their job and sometimes sustainability kind of falls to the wayside."

5.4.4 Ideological resistance – "this is all nonsense/greenwashing"

Finally, some crewmembers' resistance is rooted in science denial, although outright ideological denial or dismissal of the climate and ecological crisis appears to be rare. More frequently, interviewees encounter crewmembers who argue that sustainability work is meaningless, has no impact on an industry that is by design and nature wasteful, and is only an exercise in box-ticking or outright greenwashing. While not highlighted as the most challenging aspect of crew encounters, this issue did emerge as one that interviewees personally struggled with and a source of potential doubt and disillusionment. One interviewee further noted that "the trouble is people like that [...] do start talking to other crewmembers" - that this was not merely an individual response but one that could spread through the crew and undermines sustainability workers' advocacy efforts.

- "I think people see it as a tick-box exercise sometimes. Which I understand because productions are so carbon intensive that by the time you're on set, doing your job and someone comes up to you and says, oh, what if we plugged you into the mains? [...] You're just doing this for visibility." - "The worst thing is definitely when you come across old crewmembers who question, who effectively tell you that what you're doing doesn't matter. [...] because climate change isn't happening, or if it is it doesn't matter because it's a natural thing, or that what we do is completely pointless because the companies that tell us that they are being sustainable aren't sustainable. [...] when you hear that it's very easy to get disillusioned."

Constant exposure to misunderstanding, pushback, and negative responses to their work viewing sustainability department as outsiders and troublemakers has implications for practitioners' work lives and mental health. Interviewees report sometimes feeling like the department is a "punching bag", feeling hated, feared, or resented: even those who considered themselves resilient and determined found that constantly contending with these attitudes, alongside the frequent misunderstandings around their role, was the most challenging part of their jobs and a major driver of unhappiness and burnout.

5.5 Lack of networks and support

The practice of productions having a sustainability department of one – hiring only a single worker who combines the PA and coordinator roles – in addition to the problems outlined in previous sections, leaves role holders struggling with isolation and lack of support. Being a "team of one sort of running around" is felt both in practical terms of insufficient working hands and having to pick and choose tasks, and in terms of asserting and negotiating influence on set. Without the framework of a proper department, a lone sustainability worker is an anomaly within even medium-sized productions, which can exacerbate the experience of being an outsider.

"I was the only sustainability person there. So it was easy to say no to me."

 "Other jobs I've been in, I've been part of a team. But there's no team around sustainability. And while you are technically a production member, productions don't really claim you either. You end up on the outside of the team aspect of everything."

Interviewees overall struggled with a lack of networks, spaces, and opportunities through which to interact and connect with others in sustainability department roles. Not all were aware of any trade events (eg the albert Production Summit) and most have not had opportunity to attend such events. Notably, Louise Marie Smith describes robust networking between practitioners at the managerial and consultant level, emerging between pioneers in the field of green production who have come up in the field together: at this level the field appears still small enough for an "everybody knows everybody" situation. However, there appears to be a distinct gap between this and the experience of interviewees on the coordinator and PA levels.

In terms of other sources of support, interviewees report overall low levels of contact with certifying bodies such as albert and the Green Production Guide. While the resources provided by these certifiers are largely seen as useful, role holders mostly do not interact with certifiers outside final data submission. The UK industry has no professional association or formal communication or networking hub for sustainability professionals in film and television: notably, sustainability department roles are not acknowledged by BECTU. Informal networking takes place over LinkedIn, WhatsApp, and Facebook, creating dispersed personal networks, so that even interviewees with significant experience might still not have a clear sense of themselves as part of a professional community.

Some major US-based streamers are in the process of creating their own internal networks and processes to support sustainability workers on their productions, and those extend to productions in the UK. Several interviewees have been part of a networked cohort brought together by one streamer across its UK productions. This cohort met bi-weekly for consultations and guidance on utilising the albert system and the streamer's internal processes, and otherwise communicated regularly via a quasi-official WhatsApp group. Interviewees who had been part of this cohort mentioned its usefulness both in terms of exchanging best practice and drawing on diverse experiences and skills, and of the value of mutual

support in a nonstandard and evolving role. Such closed networks however might prove more a barrier to the creation of a unified professional community, as they lead to the siloing of expertise and best practice within streamers' internal processes.

- "[H]aving a team there was really, really helpful. [...] we came together every two weeks for about 45 minutes, an hour [...] and then we had our WhatsApp group that we could exchange information on and just support one another. Because I think at points, we were all feeling it a little bit like we didn't quite know what was going on."
- "[The internal network] was probably one of the best networks I've had. Cause a lot of people were starting out, a lot of people had been doing it for a little while, and so it was a good area of like different skills and different backgrounds and what people had done and didn't work and tried."



6. Keeping people in the field

"It's great to work with all those departments and it's really interesting. As someone who's a massive fan of film and TV, I love it. You get to see how the whole thing works."

Despite the challenges, interviewees largely considered their roles rewarding and meaningful. Positive experiences in the sustainability department were associated with working in the screen industries and enjoying a unique role within production, and with affecting change, reducing production impacts and achieving crew buy-in. Both types of experience were motivators for carrying on in the field. Interviewees noted the unique opportunities for learning and interaction in sustainability department roles and the excitement of being at the forefront of the green transition in the industry, seeing the impacts of new technologies and creative practices.

6.1 Making a difference: Mitigating production impacts

The ultimate goal of the sustainability department is to create a measurable reduction in the environmental impacts of production, and indeed an important source of validation and reward for interviewees was being able to see these impacts in the form of concrete numbers and data. This usually happens at the end of the production when the coordinator or consultant compile the final reports that go to the studio and certifier, although in some productions the department may create weekly or

monthly newsletters highlighting environmental achievements. Since much of the work of the sustainability department is about prevention (stopping CO₂ from entering the atmosphere or waste from going to landfill), demonstrating success can effectively mean proving a negative, difficult to grasp intuitively. Making these achievements visible and tangible and celebrating them along with the production crew is important to making the work that generated them feel meaningful.

Despite this fact, PAs do not always have access to these final summaries, which are often compiled by a superior (the consultant or coordinator) or internally by the commissioning streamer and submitted to the certifying body without their involvement. Without access to the full record of impact made, practitioners are not able to fully own their work: something that also has implications for portfolio building and career progression.

- "The best thing's definitely the satisfaction of seeing the difference you made at the end. So we've saved this much amount of carbon or we avoided using this much diesel instead. That's always really satisfying to see at the end when you're like, Oh my god, we've done something, we've made a difference. [...] because I think going along the way sometimes it's quite hard to see that until afterwards."
- "[A]s I could start seeing some results come in, of some of the work that we were doing, I was able to go back to [crewmembers] and say, look, doing this is helping!"

6.1.1 For interviewees who have been involved in charity donations, this was a particularly rewarding part of the work due to its immediacy and tangibility, both in giving objects and materials a new life and keeping them out of the waste bin, and in seeing the human impact of such donations and the gratitude of charity partners. As noted in

Section 3.2.3, charity donations are also visible and engaging to crewmembers, and thus fill a dual purpose that made them the highlight of their role for a number of interviewees.

 "[I]t was really fun delivering really successful clothing drives or charity drives. Because they've become a kind of culture on set that's really positive and everyone's kind of having fun with it and saying, oh I donated or I did this, and you're the person that comes back to."

6.2 Making a difference: Leading behaviour change

The achievement most mentioned by interviewees as rewarding was creating change in crew practice and behaviours and in attitudes toward sustainability. Almost all interviewees discussed the satisfaction of turning around a crewmember who was initially sceptical or uncooperative. Such successful advocacy meant that their work was being understood and finally appreciated as an integral part of the production, as the "converted" crewmembers began to consult them and seek out their input. With sustainability roles encountering so much pushback, the satisfaction drawn from a successful "conversion" is amplified by the sense of being listened to and respective.

- "The best thing is making a tangible difference in the impacts of production and the way people work and seeing people getting enlightened to the cause and understanding and then carrying it forward in the next show."
- "[T]hose are the successes. It's the people who said no at the beginning or didn't want anything to do with it, and suddenly, by the end of production they've tried something new and they are coming to you. [...] It's quite nice to see that full circle moment and feel like you've made a bit of a change."

Significant satisfaction is also derived from behaviour change that cascades through a production crew or that is done communally, for example when a department all collectively decide to start bringing reusable lunch boxes. Such moments serve as antidote to the experience of loneliness and being an outsider in a production. Charitable donations can be an excellent means by which to achieve such group engagement from crews, and special events and competitions such as around Earth Day have also been mentioned in this context.

The ultimate success was crewmembers becoming "engaged": independently and proactively interested in making their work more sustainable, taking up their own research and initiative for adopting sustainable technologies and practices, and carrying this interest forward into future productions. The scope of reward for sustainability practitioners is not limited to the work done on a single production, but is amplified by its potential to extend to long-term impacts on overall industry practice. Though this is not the direct goal of the sustainability department, which is technically beholden only to the production on which it is employed, it shows how sustainability departments act as communication and advocacy leaders enabling change on a broader scale.

- "Seeing people's perspectives on those things change as they become more familiar with certain green technology and they understand, oh, no, this actually could work. And then they kind of run with it [...] when their experience comes into play and they're like, oh actually no, we could probably use this here. That's always really satisfying."
- "[W]hen people see new kit introduced on sets, they do get curious and they start asking questions about it. When we tell them, and then they go away and they do their own research, and they say, oh, I like that and I'll use that."

6.3 Unique roles within screen production

Interviewees report many of the same pleasures and advantages of production work that are described in studies of work in the creative industries (eg Hesmondhalgh and Baker, 2011): creative, mentally stimulating and highly skilled work, different day to day and project to project, within an exciting and "cool" industry with high social prestige. Even coordinators who spend much of their time working on data collection and analysis describe their role as "not a desk job" and express their enjoyment of working within the vibrant creative environment of the film and television industry.

A unique reward for sustainability roles comes from their unusual position within productions, in which they come into contact and work with all other departments. Interviewees note that this makes their work particularly dynamic and varied and report a sense of privileged access in getting to engage with many different aspects of production and seeing other crew at work. Especially for PAs, this meant having a perspective on and insight into

the production process as a whole that is normally enjoyed by role holders on much higher levels. This chance to look into and work with all departments is additionally seen as granting valuable opportunities to learn from and network with many others, a particularly advantageous position for moving forward in the industry.

- "You don't really get bored because there's always something different happening or always a new angle to approach something."
- "[Y]ou're always talking to other departments and trying to get them on board, bring them in. And I think the more contacts you have, the more it helps you in this industry. So in that point of view, this role is really valuable for that."

6.4 Green creative opportunities

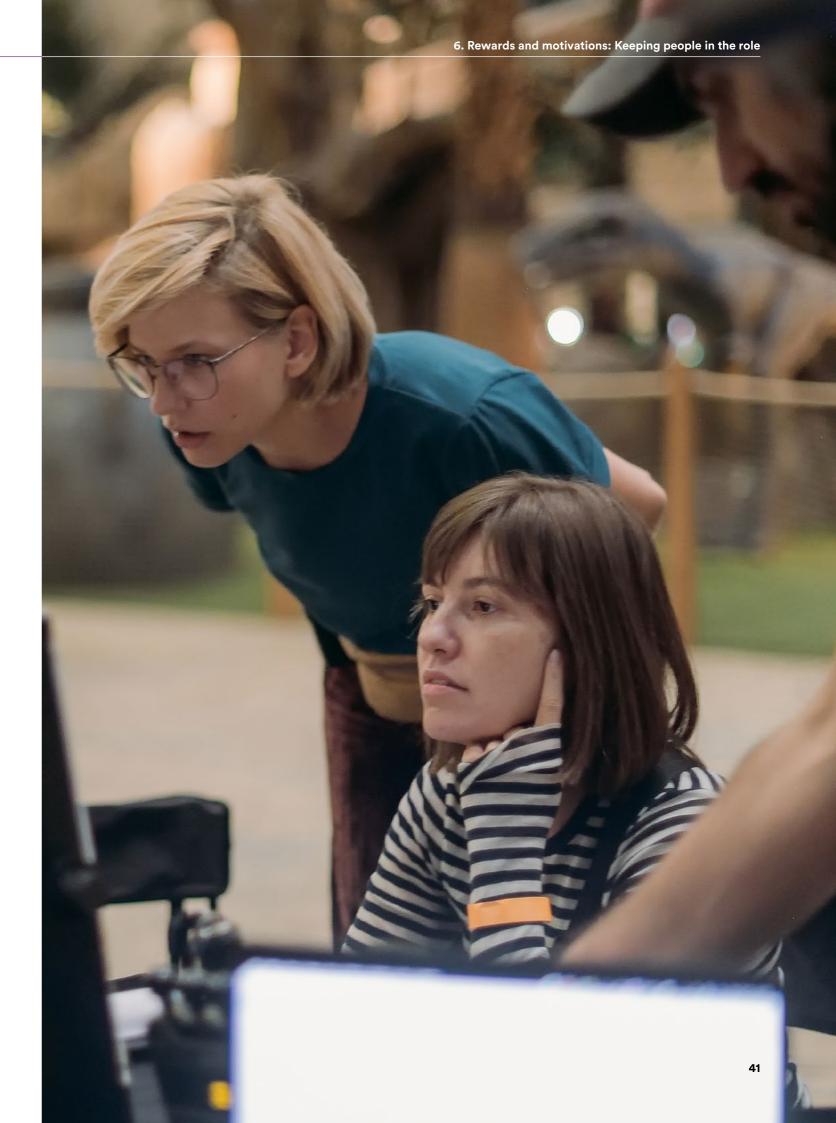
Another rewarding experience interviewees describe is observing and playing a part in the development of new ways of working made possible by new kit and production technologies. Being the first to bring a new piece of kit on set and seeing it utilised is seen as a significant and exciting privilege in an industry that celebrates technical innovation, and working closely with the crew to understand how to best use this kit sometimes means taking a hands-on part in the filming process. Interviewees coming from a production background remark on the excitement of becoming involved in headline-grabbing technologies such as virtual production. Interviewees coming from an environmental management background, meanwhile, highlight set workers' willingness to experiment with creative solutions in ways that don't occur in other industries.

"[B]ecause it's a creative industry [...] sometimes you don't get that super practical thinking that you might get in other industries. So you can have individuals who are more willing to try something that on paper sounds a bit wacky or whatever it might be, or unusual. Because it's a creative industry, they want to try something new, they want to be the first to try that thing or whatever it might be. I quite enjoy that side of what we do."

Several interviewees mention an overall sense of increasing interest and willingness from crew to engage with sustainability, and with it a rewarding sense of themselves as part of the green transition in the industry. Alongside this is a feeling that even when its impacts are limited, the work of the sustainability department is meaningful in itself:

that working for a greener industry and a healthier planet is itself a significant motivator guiding practitioners in their daily professional lives, apart from any instance of specific, tangible achievement. Sustainability department work is, perhaps unsurprisingly, a calling: even interviewees who came in with no existing passion for sustainability mention increasing interest and commitment, and the intention to integrate sustainability into their future practice even outside the department.

- "[I]t's interesting talking to crew members as well because a lot of them have said that they are really pleased that this thing is, that sustainability is starting to become more of an importance within the industry and they want to engage a lot more with it."
- "[A]t the end of the day, it's really fantastic cause no matter what happens or what wins or losses you have, you genuinely know that you are doing your best for sustainability and what's better than that? You're trying to save the planet. It doesn't matter what happens in the day. You're like, it's OK, at least I'm trying."



7. Future prospects in the field 7. Future prospects in the field

7. Future prospects in the field

"Sustainability came about so quickly and is so new and fresh in the industry. There's no standards or stepping stones of how many, roughly how many years does it take to step up."

As noted in Section 5.3, most interviewees found it difficult to envision their career progression beyond their current role. Reasons for this difficulty had to do, firstly with the lack of structure for progression, and secondly with the sense that the field of sustainable production and the roles within were swiftly changing, so that the future of work in it was difficult to predict.

With the first roles only appearing circa 2010, sustainability work is in the screen industries is constantly and quickly evolving. The misconception of the sustainability department dealing solely with "bins and water" reflects the common situation in the 2010s, in which a variety of role titles (eg Eco-runner, Eco-PA, Green Steward) were limited in their focus to reducing productions' most tangible waste streams. Post pandemic, however, interviewees note an ongoing change in many producers' attitudes toward sustainability resulting in fast-moving expansion and shift of focus in the remit of the sustainability department. The 2022 name change at Neptune, from Neptune **Environmental Solutions to Neptune Sustainability** Ltd., was done in this context, as Louise Marie Smith explains:

 "Specifically in film, environmental had gotten into a rut where people thought you just dealt with the bins [...] Sustainability feels like a bigger, more strategic goal."

Interviewees speak of a "tipping point" in the shift to a broader perspective with a greater focus on energy and on carbon emissions: an extremely positive development that makes the current moment an exciting time to join the industry and make a change.

- "[O]ver the past year, the job has really expanded. [...] On my latest job I was part of the production team that was running the production. And for all things that concerned the environment, people would come to me and would need to get my permission to do things or they would seek alternative solutions for doing things that were more environmentally friendly."
- "The role has shifted more into a circular economy piece. So working with your costume departments on how they can reduce the amount of materials they use or working with your sparks teams and your location managers on using battery power instead of a generator. So the topics we address are different now and I think that there are a lot of departments or individuals who don't expect that as you move on to a set. So that can often be a bit of a shock."

To some degree, working in such a fast-moving field that offers many opportunities to develop and learn, in which role holders enjoy increasingly more power and potential for impact, is rewarding and exciting. However, the pace of the change means the field is perceived as unstable and potentially difficult to navigate. Interviewees mostly understood progressing in the field to mean becoming a leader and pioneer, and many did not feel qualified to do this, mostly due to lack of environmental expertise or industry experience and the sense that all upskilling must be self-guided.

- "[T]he industry changes so quickly and new options become available so quickly that I'm just happy to sit and learn and try and improve things in different ways."
- "[I]t's difficult to say [where people will go from sustainability roles] because our job is [...] progressing still, and you're not sure where it might finish really."

The main challenge for interviewees was the question of where and how to move up to from coordinator, currently the highest position in the limited hierarchy of the sustainability department. While the actual remit and responsibilities of the coordinator role could differ widely, the title and relative position within production remain the same - an unusual situation within the hierarchyconscious industry. Though most were positive about continuing to work in sustainability department roles, the lack of established progression paths similar to those found in other departments meant they understood the only step up to be taking up a manager or consultant role, which is turn means becoming a freelancer or else opening one's own consultancy. Some did consider this their goal, but expressed uncertainty about making the substantial leap without any further training or means to assess their own professional progress. Others expressed a preference for working under a consultant either in-house or as a freelancer moving between consultancies, but nonetheless noted their frustration with the absence of options for further professional development and appraisal mechanisms.

- "I think it's one of those challenging aspects of sustainability in film, because if you are any other department, there would be a clear role progression. [...] But with sustainability, there doesn't seem to be that same step by step process. There are two or three role descriptions that you get and progression between those roles is bit more vague."
- "With how sustainability's been set up and what I've seen so far, there's been nothing from your coordinator to a head of department that you would step up to, not even like a supervisor or anything. So that would be my next step and part of me is like, as a head of department, it would be asking [a consultant], would they give me a production and I would run it on behalf of them and would they trust me to do that."

8. Moving forward: Recommendations for support

8.1 Guidelines for standardisation of sustainability department roles:

Organisations supporting and coordinating greening efforts in the UK screen industries (BAFTA albert, the BFI, Film London, Film Wales, Screen Scotland, and Northern Ireland Screen) should develop and make available a set of guidelines for the structure and function of and the roles within the sustainability department. These guidelines would serve as a basis for contract negotiation and matching of expectations between freelance and consultancy-based practitioners and the productions hiring them, and support professionalisation of the field and establishment of clear career paths. They should also form the basis for the educational and promotional efforts proposed in the following sections. The guidelines should set as standard the following:

- Department size and structure depending on scale and type of production.
- Role descriptions laying out each role's functions, tasks, required skillset, position within production, pay scale, structure of screen credits.
- Key skills, general timescale, and landmarks for career progression within the department.
- Collaborating with consultancies and freelancers, lay out recommended costs for hiring roles at different levels.
- Specific versions of the guidelines should be adapted with respect to production conditions within the four nations.

The guideline should be created in consultation with the environmental consultancies working with the UK screen sector, and with the in-house sustainability role holders of UK producers and transnational producers operating in the UK. This would allow the guideline to triangulate best

practices in department setup and create maximum unity of terminology, professional standards, and matched expectations between different stakeholders and types of production.

A useful example may be taken from New Zealand's NZ Greenlit initiative, which provides on its website an overview of department sizes and structures with key skills and experience for different roles¹⁵. The relatively small New Zealand screen industry is currently the only English-speaking industry to offer such guidelines: by developing the same, the UK has an opportunity to take a leading role in the field.

8.2 Increased visibility for and education around the sustainability department:

Industry organisations should promote the visibility of the sustainability department and its roles within their online and offline spaces, and especially where offering training and professional development support. Sustainability training and resources currently available to the industry feature little to no information on the sustainability department, what to expect from and how to work with it. The report recommends that industry bodies supporting the green transition develop an industry-facing information campaign with the following goals:

- Normalise the inclusion of a sustainability department and the presence of sustainability roles on set.
- Make it easy for production crews to find credible information on what these roles do, what to expect from and how to work with them.
- Address and overturn perceptions of the sustainability department: from outsiders who shame crewmembers for unsustainable practice and demand extra work, to a source of support and expertise in meeting increasingly common

and stringent regulatory requirements around environmental impacts.

Such a campaign could include:

- Create a 'Working with Sustainability Departments' information packet for crews, to be hosted on the albert website.
- Create an archive of text and video testimonies of crew from various departments on their experience of working with the sustainability department.
- Include profiles for sustainability department roles on career and professional development websites used by industry, eg ScreenSkills, My First Job in Film and the National Careers Service website.
- Hold an online 'Meet the Sustainability
 Department' event targeting industry and film
 students: invite practitioners working in different
 roles and production contexts (freelancer,
 in-house, broadcast etc.) to introduce their
 roles followed by an open Q&A session.
- Launch an award specifically recognising outstanding work by a sustainability department in reducing a production's environmental impacts. The range of awards currently recognising achievements in sustainable production are all awarded to productions as a whole and none offer specific recognition to sustainability practitioners and teams. An exception is the British Film Designers Guild Production Design Awards' Planet Positive Award, which recognises individuals and art departments' efforts:¹⁶ this could serve as a useful model.

While addressing crew on all levels, the campaign and other promotion efforts should especially target executives and other senior roles within production, since it is their attitude that sets the tone for the overall production's level of engagement with sustainability. Messaging for senior producers should focus on showing sustainability practitioners as expert professionals who take a burden off the rest of the crew, introduce innovative and costsaving technologies and produce valuable data that can be used going forward to prevent waste and use resources more effectively. Senior producers should be supported in understanding what to expect of working what the sustainability department, how to manage (and avoid mismanaging) role holders and how to get

the best value out of having dedicated sustainability experts on set.

8.3 Create certification-bearing training for sustainability roles

Media Cymru | University of South Wales, in partnership with Severn Screen is currently offering the first round of a training programme for sustainability coordinators on scripted film and television working within the Welsh sector¹⁷, the first of its kind in the UK. BAFTA albert and the national and regional agencies for the UK industry should take on expanding this programme into a set of certificate-bearing programmes providing regionally specific training that builds on a shared framework of standards for sustainability department roles in the UK. In addition to following the Media Cymru | University of South Wales, in partnership with Severn Screen model in offering teaching from sustainability practitioners with industry experience and academic experts (particularly in environmental science, science communication and the psychology of behaviour change), the programme should aim to collaborate with the International Environmental Management Alliance (IEMA) to incorporate elements from IEMA's Foundation Certificate in Environmental Management. The programme should also ideally offer electrical training, identified in this report as a problem area. Overall, training should cover:

- Structures and protocols of film and television production
- Basics of climate, environmental and biodiversity science
- Basics of ISO 14001 Environmental Management Systems
- Data collection and management and use of data management software
- Use of range of calculators including albert, Greenshoot and the Green Production Guide
- Energy use, electrical/lighting equipment, generator and battery handling, fuel types
- Life cycle analysis and waste management
- Science communication, advocacy, and best practices for behaviour change
- Creation of a sustainability plan for film and television productions

¹⁵ https://greenlit.org.nz/sustainability-department/

¹⁶ https://britishfilmdesigners.com/awards/12th-annual-awards/planet-positive-award/

¹⁷ https://culture.research.southwales.ac.uk/research/media-cymru/media-cymru-training-sustainabillity-co/

8. Moving forward: Recommendations for support

The programme should be open to applicants of all levels of experience and follow a modular design to accommodate trainees from a range of professional and educational backgrounds. It should especially encourage applicants from science and environmental management backgrounds. In future, consideration should be given to developing follow-up training with more in-depth focus on energy, waste, and science communication, to support varied roles within the sustainability department.

ScreenSkills offers a natural venue through which to provide the training programme: the ScreenSkills Trainee Finder programme¹⁸ in particular offers a framework through which the training can be combined with a funded apprenticeship. In this model, productions employing a sustainability coordinator will be partially funded to take on a trainee in a PA role to be mentored by the coordinator, offering a range of benefits:

- A more complete sustainability department, solving the frequent issue of a "department of one" and making for a more effective division of work: also allowing productions to see the benefits of having a larger team.
- Allowing coordinators to pass on experience and expertise in a hands-on mentorship capacity, something interviewees expressed enthusiasm for.
- Connecting trainees to a professional network of sustainability practitioners from the get-go.
- Allowing new entrants to the field a supported first work experience in a PA role designated as a training role, instead of the frequent practice of sustainability PAs taking on a much greater scope of responsibility than normal for entry level roles.
- Through the oversight of ScreenSkills training, ensuring the remit of and expectations from PAs are clear and managed in the most effective way and are not subject to challenge from other crewmembers.
- In this model, the responsibility for and work of training will be shared between albert, ScreenSkills, regional industry bodies, and consultancies supplying the mentors, allowing a pooling of resources and expertise.

8.3.1 Context: Sustainability coordinator training in the EU

Several EU countries currently offer certified training for sustainability roles in film and television and new programmes are being developed every year, leaving the UK industry in danger of falling behind international standards. Below is a brief overview of existing programmes that are (1) certification-bearing and (2) specifically aimed at training professional consultants, rather than broader green production training:

- The Baden-Württemberg Media and Film Society and Stuttgart Media University (HdM) offer since 2019 a University Certificate in Ecologically Sustainable Filmmaking (Hochschulzertifikar für Ökologisch Nachhaktuge Filmherstellung) targeted at film and media professionals¹⁹. The course combines in-person training with online study, approximately 180 hours of workload depending on trainees' backgrounds, and a final examination. Graduates receive the title of certified Green Consultant. The cost of the course is €1,200 and subsidies are available for filmmakers from the Baden Wurttemberg region.
- Vocational training provider IHK Academy of Munich and Upper Bavaria offers a similar certificate-bearing programme on an online only basis²⁰. This programme includes 120 hours of study spread over a month including two five-day seminars and a self-study period with a final examination. Cost per participant is €2,250. Graduates receive the title of certified Green Consultant for Film and Television.

- The Lower Austrian Film Commission's Evergreen Prisma initiative offers Green Film Consultant training, targeted at experienced filmmakers and production personnel interested in becoming freelance Green Film Consultants in Austria²¹. The programme is spread over one month with eleven days of full-time study plus three days of exams, all online. A limited number of participants are selected from applicants and course costs are covered by the LAFC. The curriculum corresponds to the IHK's Green Consultants Film & TV programme as adapted to the Austrian film and television industry, integrating the Evergreen Prisma tools and resources. Graduates receive the Evergreen Prisma Consultant for Film & TV certificate and are listed on the Evergreen Prisma website as certified Green Consultants.
- Lucerne University of Applied Sciences and Arts in Switzerland offers a Green Consultant Certificate of Advance Studies, targeted at filmmakers and other professions with set experience²². The course is spread over five months and includes four full days of in-person instruction and seven additional online sessions. Cost per participant is 3550CHF (approximately €3,700). Graduates receive the title of certified Green Consultant.
- The Lusófona University, in partnership with Hochschule der Medien Stuttgart, Film EU and the Portugal Film Commission offer a postgraduate Green Consultants – Sustainable Management of Audiovisual Production course, aimed at production professionals²³. The course is spread over 180 hours/16 weeks combining synchronous and asynchronous online learning and project work. Graduates receive the title of certified Green Consultant.

¹⁹ https://www.zertifikat-green-consulting.de/

²⁰ https://www.ihk-akademie-muenchen.de/csr-nachhaltigkeit/green-consultant-film-tv/

²¹ https://www.cine.tirol/en/green-film-consultant-austria-2/

²² https://www.hslu.ch/en/lucerne-school-of-art-and-design/continuing-education/green-consultant/

²³ https://www.ulusofona.pt/en/lisboa/training/gestao-sustentavel-de-producao-audiovisual-green-consultants

8.4 Create networking and organisational opportunities for sustainability practitioners

Networking among sustainability practitioners in the UK is currently largely informal, carried out through WhatsApp and LinkedIn. The creation of a central online hub for the field and attached social media networking spaces would help mitigate issues of isolation especially for entry-level roles, provide mutual support mechanisms for practitioners, and contribute to a sense of working within an established professional community. Such a hub would facilitate the dissemination of best practice through making it easier for practitioners to consult each other and provide a means of showcasing success and achievements, thus supporting career building. The albert website seems the best place within which to host this hub and maintain it as an open resource for all practitioners. However, further consultation with commissioners and commercial consultancies is required to understand the challenges presented by non-disclosure agreements and how to best enable conversation and sharing of expertise across stakeholders.

To facilitate the development of a professional community, the 2024 albert Production Summit should organise a roundtable discussion bringing together consultancy leaders, in-house practitioners, and training providers to discuss the state and future of the sustainability department and sustainability roles within production. This may usefully be followed by a networking event specifically for practitioners: both events should have an emphasis on both horizontal and vertical networking, providing practitioners with an opportunity to meet others in the same role as well as to gain insight into more senior roles and role models. This would allow practitioners to place themselves within a community of change-makers and be inspired in their own professional development.

As a next step, albert should consider organising a yearly conference event for department role holders, to serve as a space to share department best practices, develop professional networks, and promote open discussion of and mutual support around issues of wellbeing and mental health in the role. In particular, workshops on building resilience in the face of negative responses and on strategies

for handling common reasons for crew pushback could usefully tackle a major source of burnout in and obstacle to practitioners' day to day work.

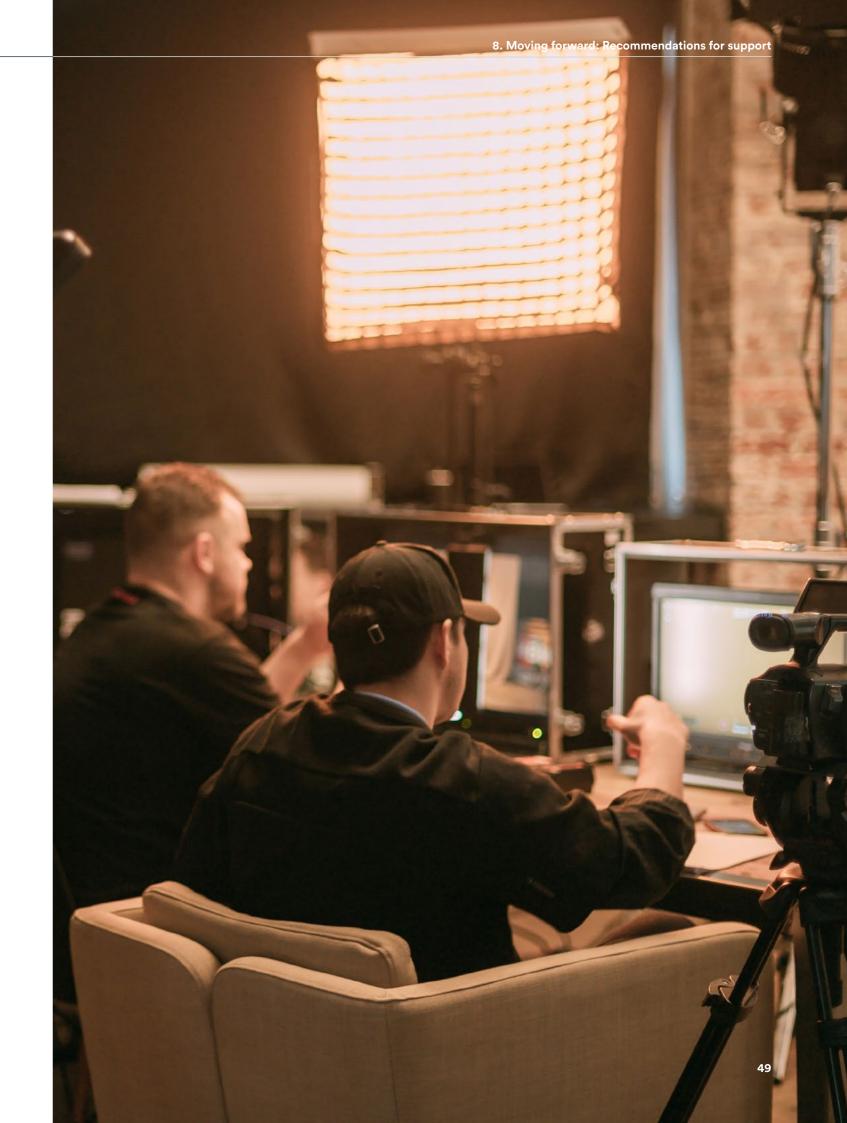
In the ultimate phase of professional community building, consultancies should consider forming a professional association, following the model of Germany's Federal Association of Green Film and Television Consultants²⁴. At the moment, although PGGB and BECTU employ sustainability managers and support various sustainability related projects, BECTU does not recognises sustainability department roles for membership (PGGB lists Sustainability Coordinator as a grade), and neither organisation offers resources such as role descriptions or rate cards. Sustainability PAs may be hired as normal PAs in terms of union membership and regulations, but at the coordinator and higher levels, sustainability workers in the UK effectively have no professional home. A centralised organisation bringing together freelancers, consultancies and in-house practitioners within broadcasters and studios would serve to set standards, disseminate expertise, and advance professional interests such as screen credits and department visibility within the industry.

8.5 Support CV building through screen credits and data access

As a condition for receiving albert certification, productions should:

- Include a standardised listing for sustainability department roles in the screen credits, using the framework of titles established in the guidelines proposed in section 8.1.
- Provide all members of the sustainability department full access to the data collected during the production.

Both of these provisions would enable role holders to better build their CVs and showcase their accomplishments. In addition, consistently applied screen credits for the sustainability department would improve the visibility of roles and of sustainability as a whole within the industry and give a sense of accomplishment and respect for practitioners. Data access meanwhile would help make their achievements visible and tangible to role holders and provide an important sense of reward upon completion of a project for roles that by nature are not conventionally visible on screen.



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Contact:

leora.hadas@nottingham.ac.uk

University of Nottingham University Park Nottingham, NG7 2RD

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