

The

GREEN

Revolution

Ege Heckmann - Green Producers Club

Agenda

- Who am I
- Producing green is pretty easy
- What has been happening in Europe
- A case study of a green film production
- How to make a sustainability report
- How to make a CO₂-budget and CO₂-report
- The BIG CO₂ QUIZ



Ege means oaktree in Danish

Owner and producer in production company for 10 years

First to produce film in a greener way in Denmark

Country Manager for Green Producers Club Denmark

Sustainability manager on big productions in Europe

Giving a lot of talks

Producing **green** is pretty easy

(in theory at least)

- 1. Start measuring the emission on your production**
- 2. Reduce your emission where it makes the biggest impact**

That's basically it!

Producing **green** is pretty easy

(in theory at least)

This will pretty quickly give you a 50% CO2-reduction

You will save money on your production

It has no negative effect on the quality of the production

AND you and your crew will feel good about it

Producing **green is pretty easy**
(in theory at least)

You guys are the key to this transition

That is why I am here

Producing **green** is pretty easy

(in theory at least)

My agenda for today:

**Teach you how to cut emission by 50%
on your next two productions**

BUT FIRST A LITTLE DATA

A low-angle shot of Batman in his suit, standing in a dark, industrial environment. Sparks and debris are falling around him, creating a dramatic and intense atmosphere. The lighting is dim, with some highlights on the sparks and the texture of his suit.

FILMPRODUCTION & CO₂

“The average American film is estimated to produce 500 tonnes of CO₂ emissions – as much as running 108 cars for a year” (UCLA study 2006)

The Dark Knight used 500.000\$ on Diesel for crew + 900 people was flown around the world.

The emission is about 4.000 Ton CO₂ for each Blockbuster in USA (budget 50+ mill\$)

FILMPRODUCTION & CO₂

The Day After Tomorrow (2004) was evaluated by Future Forests,
To have an emission of 10.000 Ton CO₂

Used 200.000\$ to compensate for the emission.

CULTURE & CO₂

ICT-industry (Informations- & Communications Teknology) is responsible for 2-4% of the global emission

Airplane industry emmits 2-3%

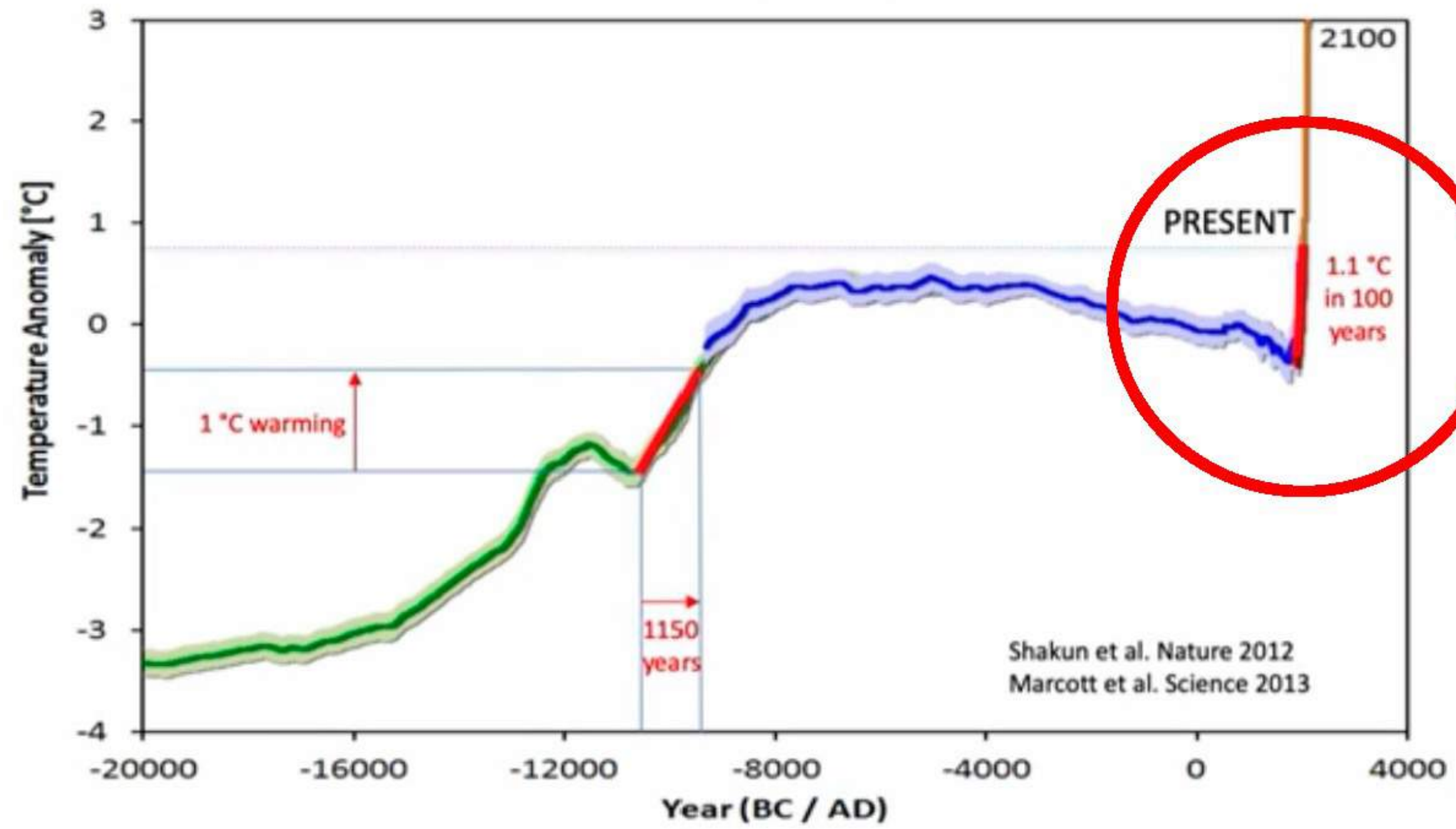
We can easily reduce with 50% and actually with quite a lot more.

WHAT IS 1 TON OF CO₂?

1. **Car Emissions:** 1 ton of CO₂ equals 1/4th of the annual emissions from an average car.
2. **Air Travel:** 1 ton of CO₂ equals the emissions from one long-haul flight.
3. **Food Production:** 1 ton of CO₂ equals about of the emissions associated with 250 servings of beef.
4. **Tree Absorption:** 1 ton of CO₂ equals the amount absorbed by approximately 45 trees in a year.
5. **Coal Power Generation:** 1 ton of CO₂ equals the emissions from burning approximately 0.35 tons of coal.
6. **Paper Production:** 1 ton of CO₂ equals the emissions from producing approximately 0.67 tons of paper.
7. **Air balloons:** 1 ton of CO₂ fills the same as one airballon



GLOBAL TEMPERATURE SINCE THE LAST ICE AGE



EG

Can you give me a short list of the consequences global warming will have in the next 10 years?



Certainly! Here's a short list of potential consequences of global warming that could occur in the next 10 years:



1. Increased heatwaves and extreme temperatures, leading to health risks and heat-related illnesses.
2. More frequent and intense extreme weather events like hurricanes, cyclones, droughts, and floods, resulting in property damage, infrastructure destruction, and loss of life.
3. Accelerated melting of glaciers and polar ice caps, leading to rising sea levels and increased coastal erosion, flooding, and salinization of freshwater resources.
4. Disruption of ecosystems and loss of biodiversity due to changes in temperature, precipitation patterns, and habitat loss, affecting plant and animal species.
5. Impacts on agriculture and food security, including changes in crop yields, shifts in growing seasons, and increased risks from pests and diseases.
6. Health risks from the spread of vector-borne diseases and the exacerbation of respiratory and cardiovascular illnesses due to air pollution and heat stress.
7. Displacement of populations due to increased frequency of extreme

Regenerate response




Send a message



EG

Can you give me a short list of the consequences global warming will have in the next 10 years?



Certainly! Here's a short list of potential consequences of global warming that could occur in the next 10 years:   

1. Increase in temperatures leads to more diseases
2. Extreme weather creates death and destruction
3. Melting polar ice caps cause flooding and reduce drinking water
4. Biodiversity collapses
5. Resources such as food are threatened
6. Airborne diseases will increase due to heat and air pollution
7. Climate refugees will increase proportionally

 Regenerate response

Send a message



EG

Will civilisation as we know it survive climate changes?



The survival of civilization as we know it in the face of climate change is a complex and multifaceted question. It depends on various factors, including the scale and speed of climate change, global efforts to mitigate greenhouse gas emissions, adaptation measures, and socio-economic considerations. While it is challenging to make definitive predictions, here are some key points to consider:



1. **Mitigation efforts:** The success and effectiveness of global efforts to reduce greenhouse gas emissions will play a crucial role in determining the extent of climate change impacts. If significant and immediate action is taken to curb emissions and transition to sustainable practices, it can help mitigate the most severe consequences.
2. **Adaptation measures:** Building resilience and adapting to changing climate conditions are essential for minimizing the impacts of climate change. This includes implementing strategies to protect vulnerable communities, enhancing infrastructure, diversifying economies, and promoting sustainable resource management.
3. **Societal responses:** Public awareness, political will, and societal responses to climate change will shape the trajectory of its impacts. Strengthening international cooperation, engaging in sustainable practices, and taking immediate action can contribute to a

↻ Regenerate response

Send a message



EG

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The survival of civilization as we know it in the face of climate change is a complex and multifaceted question. It depends on various factors, including the scale and speed of climate change, global efforts to mitigate greenhouse gas emissions, adaptation measures, and socio-economic conditions. While the future is uncertain, here are some key points to consider:



Not as we know it, but depends on what we do now

1. To what extent we manage to reduce CO2 emissions
2. To what extent we manage to adapt to the changes that are coming
3. That we agree to work in the same direction as civilization

1. Mitigation efforts: The success and effectiveness of global efforts to reduce greenhouse gas emissions will play a crucial role in determining the extent of climate change. Significant and immediate action to curb emissions and transition to sustainable practices, it can help mitigate the most severe consequences.
2. Adaptation measures: Building resilience and adapting to changing climate conditions are essential for minimizing the impacts of climate change. This includes implementing strategies to protect vulnerable communities, enhancing infrastructure, diversifying economies, and promoting sustainable resource management.
3. Societal responses: Public awareness, political will, and societal responses to climate change will shape the trajectory of its impacts. Strengthening international cooperation, engaging in sustainable practices, and promoting equitable action can contribute to a

🔄 Regenerate response

Send a message



EG

What can the film and tv-industry do to reduce their emission?



The film and TV industry can take several steps to reduce their emissions and promote sustainability. Here are some strategies that can be implemented:



1. **Energy efficiency and renewable energy:** Production companies can adopt energy-efficient practices in their facilities and on set. This includes using energy-efficient lighting, equipment, and appliances, as well as transitioning to renewable energy sources to power their operations.
2. **Sustainable transportation:** Encouraging sustainable transportation options for cast and crew can help reduce emissions. This can involve promoting carpooling, using electric or hybrid vehicles, and supporting public transportation for commuting to and from set locations.
3. **Waste reduction and recycling:** Implementing comprehensive waste management practices can minimize the environmental impact of production activities. This includes reducing waste generation, recycling materials such as paper, plastic, and aluminum, and properly disposing of hazardous materials.
4. **Green set design and construction:** Promoting sustainable set design and construction techniques can contribute to reducing emissions. This can involve using eco-friendly building materials, incorporating energy-efficient designs, and reusing or recycling set materials.

Regenerate response

Send a message





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1. Energy efficiency and renewable energy: Production companies can adopt energy-efficient practices in their facilities and on set. This includes using energy-efficient lighting, equipment, and appliances, as well as switching to renewable energy sources to power their operations.
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4. Green set design and construction: Promoting sustainable set design and construction techniques can contribute to reducing emissions. This can involve using eco-friendly building materials, incorporating energy-efficient designs, and reusing or recycling set materials.

- 1. Cleaner and more efficient energy consumption**
- 2. Sustainable transportation (carpooling, EV cars)**
- 3. Less waste on set (waste sorting and recycling)**
- 4. Green set design (reuse of materials)**

🔄 Regenerate response



COGNITIVE DISSONANCE

If you feel bad right now its something called Cognitive dissonance.

This is the discomfort a person feels when their behavior does not align with their values or beliefs.

You can handle this feeling by ignoring it, come up with excuses or change your opinion.

COGNITIVE DISSONANCE

Only thing that really works is to do something about it.



EUROPE

WHAT IS HAPPENING

QUICK SUMMARY

- Very different development from country to country
- Things happening in silos around the industry
- Alliances starts popping up between big platforms
- Sets guidelines for each country that starts to look alike
- Very well received by (part of) industry
- Keyplayers sets high standards and the industry wakes up
- Guidelines as inspiration for manifests and further ambitions

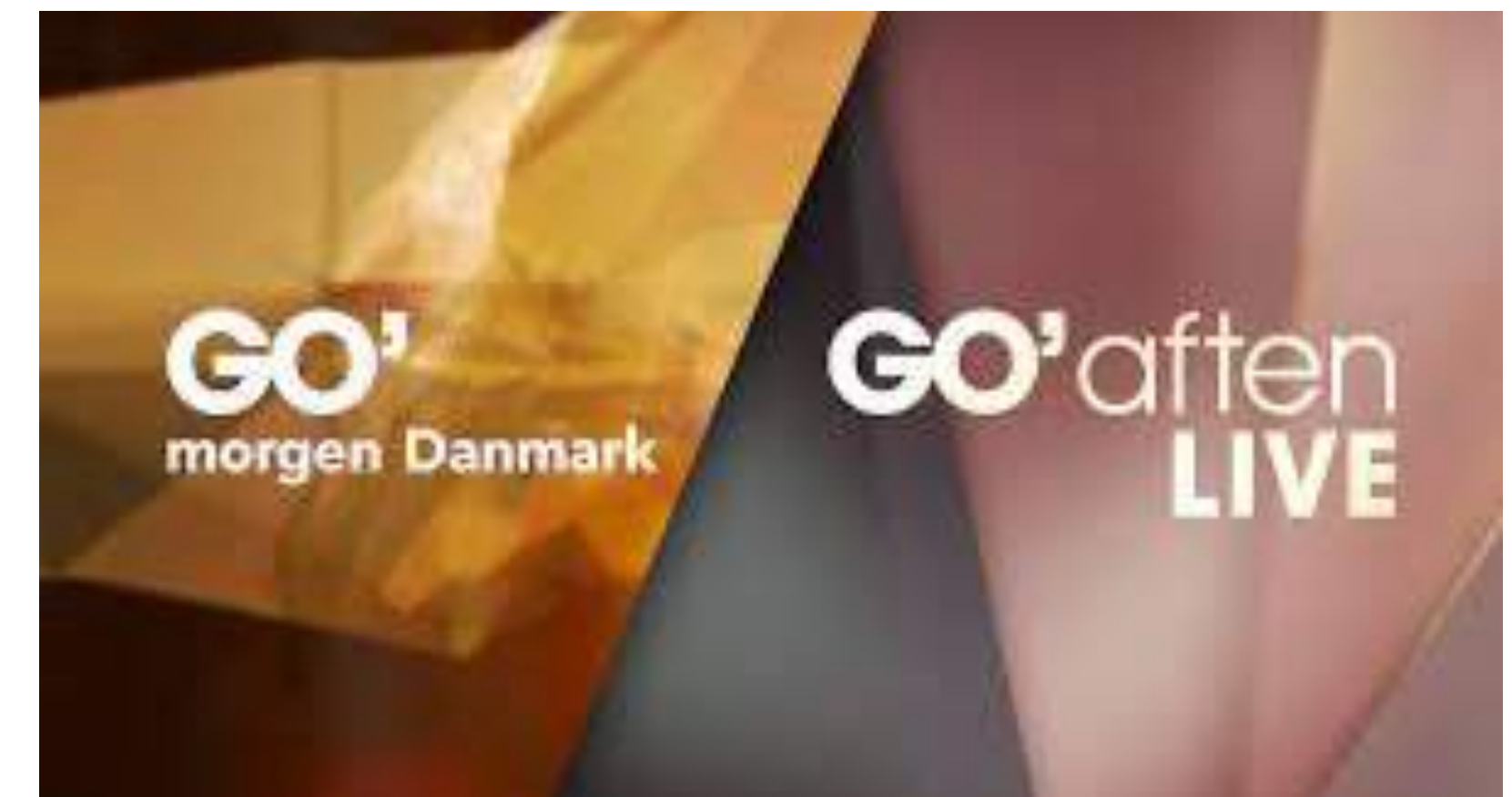
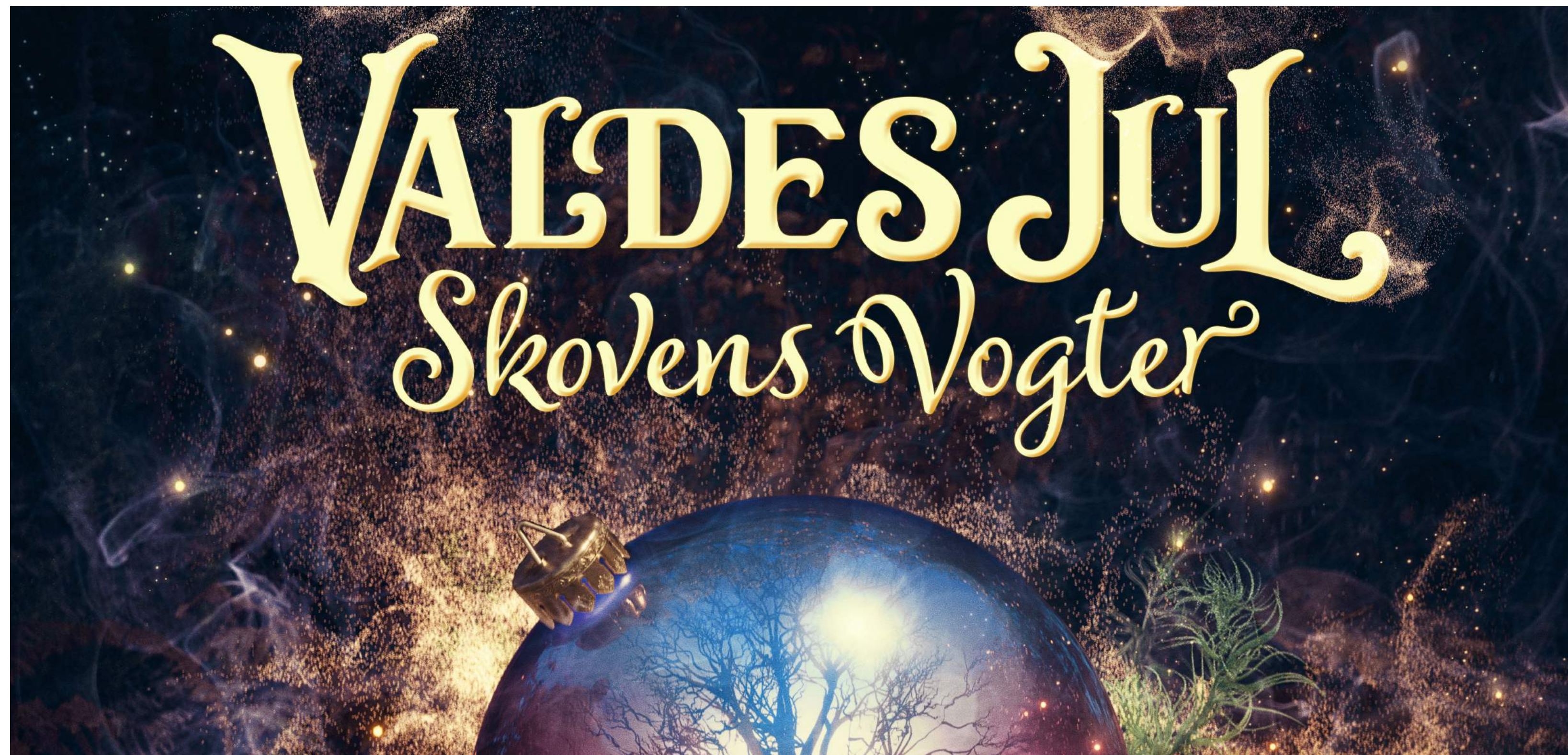


GREEN FILM


A QUICK CASESTUDY

REQUIREMENTS

- Sustainability plan that maps what you will do on the production
- A transport plan that shows you have been thinking about how to reduce transport
- Visits from Auditor to check if the production lives up to the sustainability plan (1-3 visits)
- Documentation to auditor after end of production



OVERALL FINDINGS



Danish certification has gotten an average score 41,5 point (20 required)

Crews has been extremely positive about most of the guidelines

The certification makes a big reduction on CO2-emission

IMPACT OF GREEN FILM CERTIFICATION

Case-example X-factor 2022/23

F A C T O R

GREEN FILM IMPLEMENTATIONS ON XF 22/23

- Local energy-mix and 90% of light was LED.
- Very high level of codriving. All cars was Euro 6 or better.
- Accommodation within 10Km of production.
- Almost all plastic bottles and cutlery was cut and replaced with Tap-water and reusable cutlery. Red meat was reduced and replaced with green alternatives
 - Almost all garbage was recycled
- The production aimed for 41 points out of 50 possible
- Data was collected all the way through and a rapport was created in both Green Producers Tool and Albert.

CONCLUSION FROM CLIMATERAPPORT

X-Factor 2022/2023 Green Film certified

Total

64.67 tonnes CO2-eq.

181 activities

Emission Categories	%	kg CO2-eq.	Activities
Transport	36.87	23845.55	39
Food & beverage	25.94	16775.64	45
Energy	21.72	14048.3	25
Recycling & waste	6.19	4006.44	34
Accommodation	6.02	3891.0	13
Equipment	3.24	2096.05	19
Art department	0.02	10.29	6

WHAT DIFFERENCE DID THE GREEN FILM CERTIFICATION DO?

- To see what difference the certification did we made an copy of the rapport and replaced all the green initiatives with how you conventionally would produce:

Ex:

- Codriving was changed to individual driving
 - All the saved plastic bottles are in the rapport
 - Energy consumption is doubled because LED uses 4x less then halogen
 - All the sorted garbage is reported as mixed garbage
 - Vegetarian food are replaced with meat
- Etc.

HOW MUCH CO2 WAS SAVED?

X-Factor 2022/2023 Green Film certified

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64.67 tonnes CO2-eq.
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Equipment	3.24	2096.05	19
Art department	0.02	10.29	6

X-Factor 2022/2023 konventionel

Total
95.07 tonnes CO2-eq.
183 activities

Emission Categories	%	kg CO2-eq.	Activities
Transport	45.42	43176.8	39
Food & beverage	24.39	23187.32	48
Energy	18.94	18009.84	25
Recycling & waste	4.36	4142.86	34
Accommodation	4.09	3891.0	13
Equipment	2.79	2651.27	18
Art department	0.01	10.29	6

ROADMAP XF 23/24

Two initiatives that will make the biggest impact:

- Final in Copenhagen
- Replace all beef with at least pork

ROADMAP FOR XF 23/24

X-Factor 2022/2023 Køreplan

Total

35.96 tonnes CO2-eq.

174 activities

Emission Categories	%	kg CO2-eq.	Activities
Food & beverage	37.09	13339.91	45
Transport	33.44	12025.62	36
Recycling & waste	11.14	4006.44	34
Accommodation	6.46	2322.0	10
Energy	6.01	2162.24	24
Equipment	5.83	2096.05	19
Art department	0.03	10.29	6

These two initiatives will reduce with

28,7 ton CO2

And give a total reduction of

59 ton CO2

In procentage that is

62,2%

CONCLUSION

- X-Factor 2022/23 was Green Film certified with a score of 41 point out of 50 possible.
 - X-Factor 2022/23 emitted ca. 64 Ton CO2
 - X-Factor without green initiatives would have emitted 95 Ton CO2
 - That's a 32 % reduction!
 - There was in total saved 30 ton of CO2
- A roadmap with to relative simple initiatives focussing on the biggest emitter was mapped
- This plan means that next season will be able to save 62% of CO2 or about 59 Ton in total.

VAIDES JUL

	Reduction in ton	Reduction in %	Roadmap ton	Roadmap %
Dancing with the stars	6,7	41	8,9	55
Morning TV show	0,5	8,4	1,8	33
X-Factor	31	32	59	62
24 christmas episodes	144,6	63,1	165,3	72,2
TV Fiction series	57	51	80,38	71,84
Avg reduction	47 ton	39%	63 ton	58%

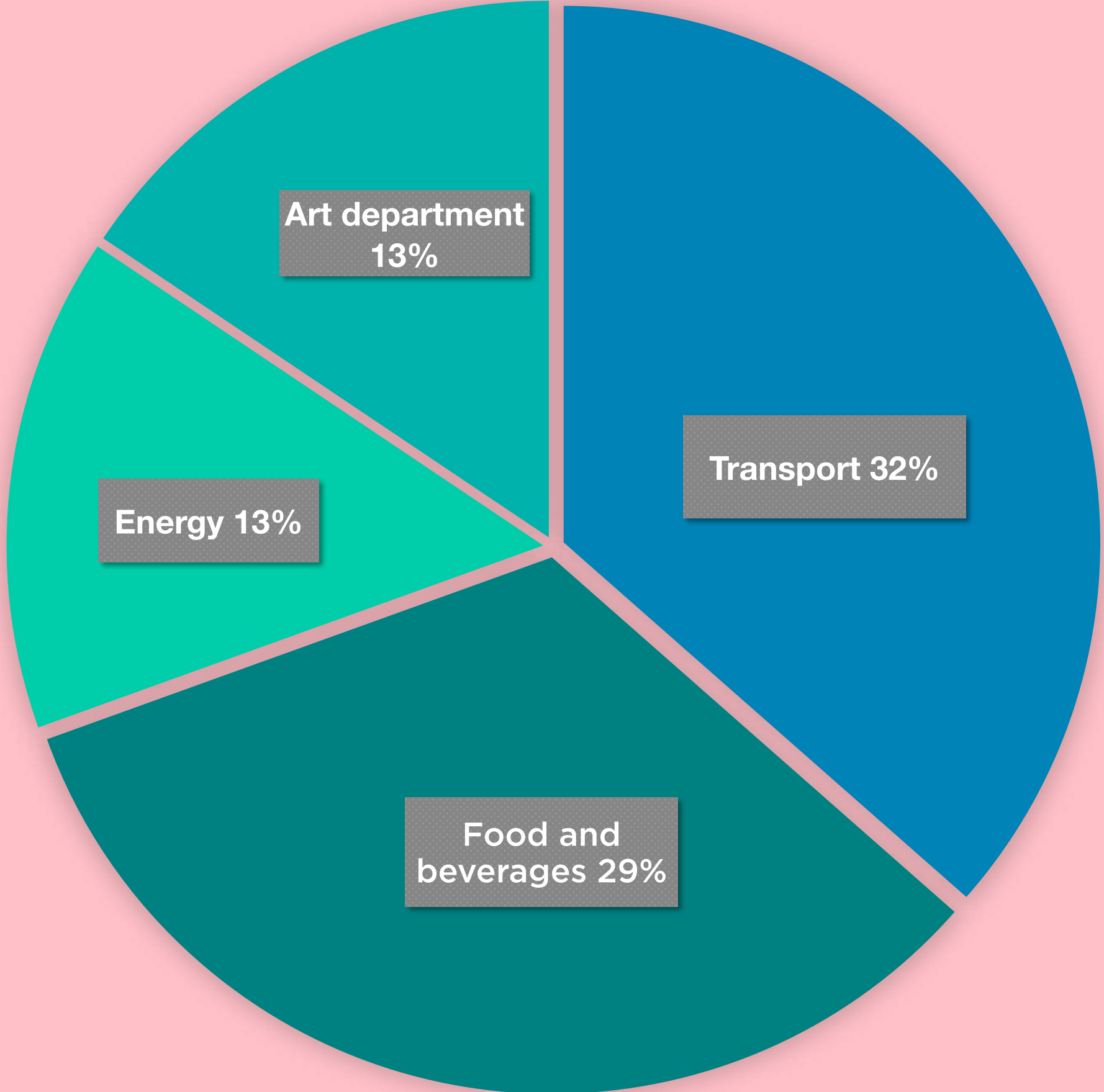
GO'

GO'after

VILD MED DANS

BIGGEST EMISSIONS

The four biggest categories – total of 87% on a production



BIGGEST LEARNINGS

- Cooperation between green guidelines and CO2-tracking works really well
- The industry needs more knowledge about this
- Money are saved on green initiatives (after a couple of productions)
- It actually makes the crew happier

STATUS NOW

- Pretty heavy EU law is coming: CSRD, ESG etc – and so is full blown panic
- Big players has gone rouge with green ambitions. Others has started to followed.
- Three demands: CO2-Budget, Sustainability plan and CO2-Report
- Hugh lack of knowledge – we really need the educations to step up on the subject.
- This is the year of mapping – next up is reduction

THE TOOLS YOU NEED TO KNOW

- Sustainability plan
- Carbon calculator



SUSTAINABILITY PLAN

A wooden boardwalk path leads through a lush green field of tall grasses towards a sunlit forest. The sun is shining brightly through the trees in the background, creating a warm, golden glow. The text "SUSTAINABILITY PLAN TEMPLATE 2024" is overlaid in white, bold, sans-serif font in the center of the image.

SUSTAINABILITY PLAN TEMPLATE 2024

SUSTAINABILITY PLAN

This production aims to be certified as a Green Film. Therefore, several preliminary initiatives have been taken to ensure that the production can meet the certification. In the initial phase, the following initiatives have been undertaken:

1. Initial meeting with the production company's management to review green initiatives for the specific production and overall initiatives in the production house.
2. Workshop to review initiatives in various production departments.
3. Training of Green Managers responsible for the ongoing implementation of green initiatives.
4. Ongoing consultant support from Produced By to ensure Green film production.
5. Transport plan and appointment of a transport manager for the production.
6. Appointment of a green manager for the production responsible for data collection and ongoing compliance with criteria from the sustainability handbook.
7. Submission of a climate report upon completion of production, including an overview of CO2 emissions and the results of green initiatives.

The following is an overview of how the production expects to meet each point from the sustainability handbook.

ENERGY

The following initiatives will be adhered to during the actual production regarding energy conservation:

1. The local electricity grid will be used for all recordings.
2. No use of diesel generators.
3. Certified electricity for production.
4. All lighting will either be natural light or from LED light sources.
5. Lights will be turned off between recordings and testing.

TRANSPORT & ACCOMMODATION

The transportation plan for this production is as follows:

1. Limit all air travel. Whenever possible, use alternative transportation methods or digital solutions.
2. Carpooling and public transportation whenever possible.
3. All vehicles will be Euro 6, hybrid, or electric cars. Alternatively, Euro 5 cars.
4. Accommodation will be within a maximum distance of 10 km from the location. At least 50% of all accommodation will be at certified lodging facilities.

FOOD & BEVERAGES

The catering plan for this production is as follows:

1. Local water supply. Alternatively: Water containers.
2. Food will as a default be vegetarian. White meat servings can be acquired on request.
3. Reuse of service and cutlery. Hot drinks served in reusable cups. Alternatively: Hot drinks and similar items will be served in biodegradable serveware.

MATERIALS

The plan for materials on this production is as follows:

1. Use of certified materials.
2. Use of recycled materials for set construction, costumes, or props to the greatest extent possible
3. Reuse of set designs after recordings.
4. Avoidance of printing whenever possible.

WASTE

The waste sorting plan for this production is as follows:

The production will sort waste into the following fractions: Plastic, organic waste, paper, metal, batteries and mixed waste.

COMMUNI- CATION

The communication plan for this production is as follows:

1. Communication to the entire film crew before production begins about it being a green production and what it entails.
2. Ongoing documentation during production that can be used for PR purposes.
3. Development of a climate report from the production used for reporting and potential PR afterward.



CLIMATE REPORTERING

First measure, then reduce

WHAT IS A CLIMATE REPORT?

All	728320.68
Phases Edit	
Pre-Production	2109.50
Production	1205.10
Post-Production	1096.00
+ Add Group	
Departments Edit	
Costume Design	9540.00
Set Design	2109.50
Lighting	1480.60
Sound	1205.10

Emissions
4210.05 Tonnes CO2-eq.

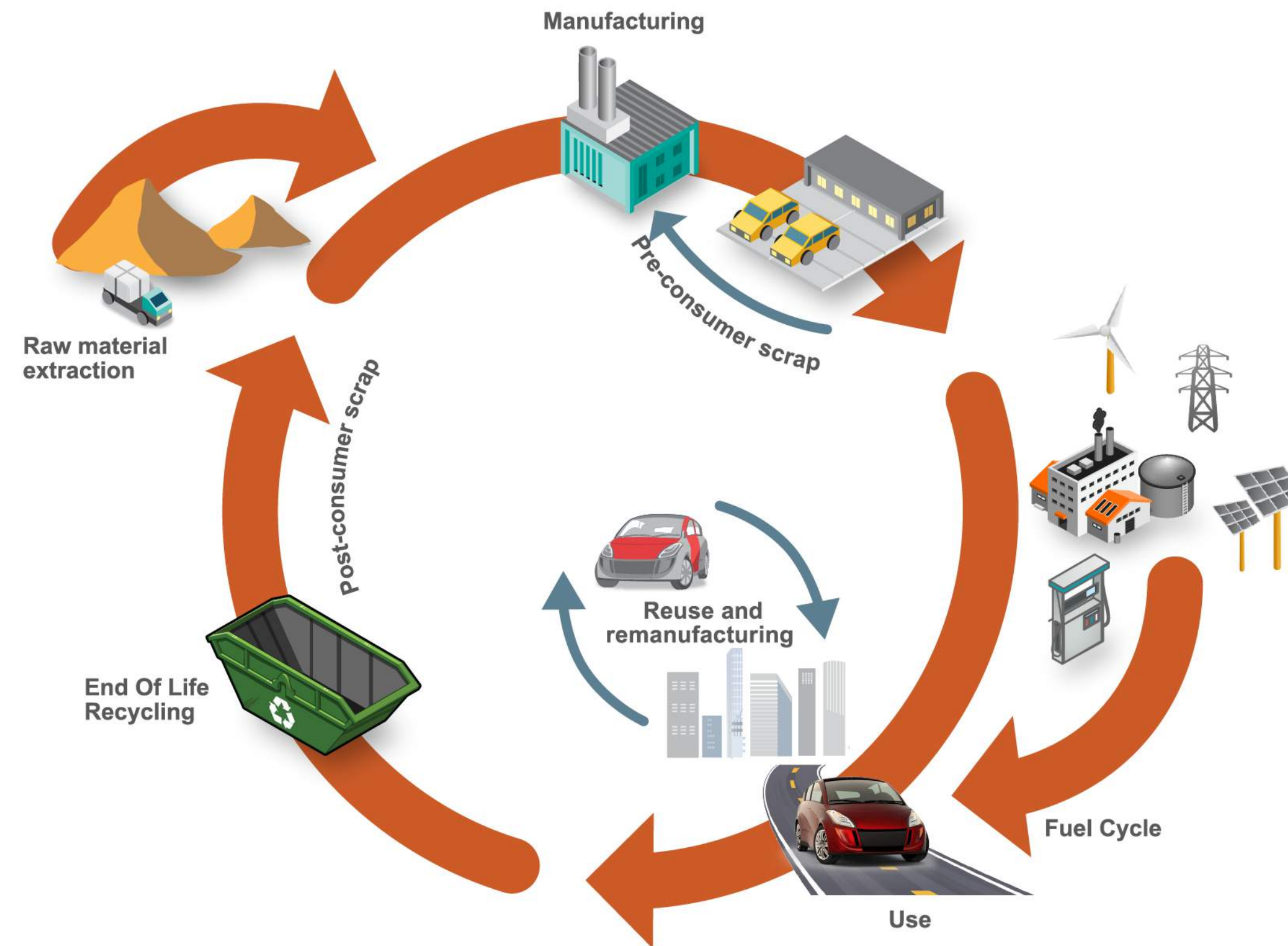
Activities
125

Search Activities Categories Made by Tags Status Sort by

Phases

Pre-Production	1205.10
Business trip to Oslo 12 Activities + 3 Drafts	685.00 kg CO2-eq. Edit
Transport Bundle 12 Activities + 3 Drafts	28.00 kg CO2-eq. Edit
Monday Lunch with a Partner 12 Activities + 3 Drafts	9 602.00 kg CO2-eq. Edit
All the Best New Hair Products 12 Activities + 3 Drafts	64.00 kg CO2-eq. Edit

WHAT IS AN LCA?



WHAT IS CIRCULAR ECONOMY?



A neon sign graphic of a television set. The TV is outlined in bright green neon. The screen area is a rounded rectangle containing the words 'QUIZ TIME' in a pink, blocky, sans-serif font. Above the screen are two antennae with pink dots at their tips. Below the screen are two circular speaker icons and a horizontal bar with three horizontal lines. The background is a dark blue brick wall.

THE BIG CO₂ QUIZ
(DEMO GPT)

KEEP TRACK OF THIS

Preproduction:

Everything that is bought from new; scenography (kg or meters), props (pieces/size or kg), makeup (kg), costume (piece or meter) – ask them to note what they buy from new or rent.

Production:

**Track food daily or weekly
Energy consumption from locations.**

After production:

Invoices.

**Specially transport and energy
But also catering and waste**

FUTURE OF REPORTING

Some thoughts:

- Ask your suppliers to deliver what you need
- Make a budget before you start, that shows the green intentions
- No reason to rapport less – its not an advantage for you. At all.
 - You need to know that there are more demands coming
 - Huge lack of knowledge and expertise in this field
 - Reporting will be extremely important in the future

A high-resolution image of Earth from space, showing the continents of Africa and South America. The planet is centered in the frame, with the dark blue of the oceans and the green and brown of the landmasses clearly visible. The background is a deep blue space filled with numerous small, bright stars. The text "PLANET PLACEMENT" is overlaid in the center of the image in a bold, white, sans-serif font.

PLANET PLACEMENT

AMERICAN INITIATIVES

Earth angels sustainable production services

EMA - environmental media association

Green Production Guides - have PEACH carbon calculator

THE 5 GREEN KEYS

Start by making a CO2-rapport - mapping

Implement green initiatives with biggest impact - sustainability plan

Get certified or produce after green guidelines guidelines

Analyse and build upon your success - roadmap

Track and document the development on the productions