



Tekstallmenningen
Tidsskrift- og småforlagssentralen

Sustainability Strategy

2020

Tekstallmenningen was established in 2020 together by Tekstallianse, Norsk Tidsskriftforening and the cultural journal Vagant. Tekstallmenningen offers services connected to the sale, dissemination and distribution of cultural journals in Norway. Tekstallmenningen also works strategically to promote and support cultural journals, making their important role visible to the public and enhancing competence for editors, critics and contributors.

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Foreword

Sustainability is a moving target and therefore our strategies for achieving it must be adaptable and flexible while remaining committed to the goal. Identifying the most sustainable option in shifting real world circumstances is often elusive and complex. Sometimes there is no best option and unintended consequences are always a risk. This report is meant to offer Tekstallmenningen and it's partners initial guidance and most of all to inspire reflection about the impact of our activities through the diverse networks we are all engaged with. The eight focus areas are partners, plastic, energy, transportation, paper, ink, waste and recycling.

Partners

Recommendation: When possible, prioritize working with partners who have established guidelines to improve their environmental impact – for example ISO 14001 certification or EU Eco-Management and Audit Scheme (EMAS) certification.

Sustainability is a collaborative enterprise. Ask potential partners if they have established guidelines to improve their environmental impact. While ISO and EMAS are the most common certification schemes, there are other options. Choosing partners that have developed their own sustainability strategies is a good way to ensure that your product is sustainable all the way through the supply chain. It is also a good way to normalize sustainability efforts and encourage more people to think about developing strategies while providing consumers with more sustainable options. This includes paper mills, publishers, printers, distributors, retailers and any other entities you may work with. New solutions are being developed all the time, so ask your partners what they have to offer.

Both ISO and EMAS certifications exist to encourage organizations to develop their own environmental policies and improvement plans according to international standards. Neither of these certifications refer to the sustainability of a product itself but rather that the organization has reflected on the environmental impact of their operations and has a plan in place for improving their production process and office policies.

ISO 14001 standards are a technical framework for organizations to use in establishing their own systems for monitoring and improving their environmental impact. It does not include specific requirements for environmental performance but establishes a set of international standards intended to help organizations design their own protocols to minimize their negative impacts on air, water and land quality. ISO standards are also a tool to facilitate compliance with environmental regulations. The certification is for putting in place goals and progress measurement schemes.

The EU's Eco-management and Audit Scheme (EMAS) expands on ISO 14001 standards with a more demanding structure and reporting scheme. EMAS involves creating a comprehensive environmental impact assessment, establishing indicators for improving performance and creating guidelines and programs for employee engagement.

Recommendation: If you are going to work with a publisher, consider choosing one that is a member of PREPS or other networks for sustainable publishing.

PREPS stands for Publishers' database for Responsible Environmental Paper Sourcing. PREPS operates a database for information about raw material sourcing, CO2 emissions and water use. The database grades paper from 1 to 5 (with one being the lowest) on ethical implications of its source and recirculation. Other networks are emerging so keep an eye out for new developments. If you are self publishing, consider joining a new network for spreading awareness about sustainability in your sector.

Plastic

Recommendation: Consider non-plastic options for packaging such as recycled paper or new innovations.

The principles of reduction, replacement and recycling govern the use of plastic. Reduction is important for any material you choose. Replacements can be recycled paper which is affordable, accessible and usually easy for the receiver to recycle appropriately. Avoid paper packaging that is laminated with plastic or coated with resin which makes it impossible to recycle with other paper products. The lowest grades of paper, for example the material used in egg cartons, should not be recycled into paper bins but instead disposed of with general waste which is incinerated. However, people often either don't know or forget which causes problems for recycling facilities.

New materials to replace plastic and tree-based paper are increasingly entering the market. Initiatives such as Bioregion Vestland are currently being established and over the next few years more sustainable packaging products will become available and affordable. Which packaging is best for Tekstallmenningen should be reconsidered as the sector progresses.

Recommendation: When plastic is used, avoid low-density polyethylene (LDPE).

It should be evaluated whether the amount of plastic can be reduced and whether the type of plastic used is recyclable in the areas it is being dispatched to. Most plastic packaging in use in Norway can be recycled locally. However, keep an eye out for low-density polyethylene (LDPE). This type of plastic is ubiquitous in many regions and it is difficult to recycle. Most recycling programs do not accept it but many people put it in the bins anyway and it tends to clog up sorting and conveyance machinery.

Energy

Recommendation: Use LED and CFL light bulbs.

Energy is required at every stage, from the computers and lights in the place where a product is imagined and designed to the production and processing of paper, the printing process, the distribution of the journals to outlets and readers to their eventual transportation to waste management. Energy use can be reduced in many ways for example putting thermostats on timers and using LED and CFL light bulbs. These types of measures are important in your own office as well as your partners and they also reduce costs in energy bills.

Recommendation: Improve coordination for the distribution of periodicals for more efficient energy use.

The emissions from distribution can be reduced through the shift to electric transportation. However electric transportation still needs energy. Even though electricity in Norway is almost entirely produced from renewable sources, there are several reasons to reduce use. As we move towards the goal of total decarbonization, the electric grid is put under increasing pressure, especially at peak times. The production and infrastructure associated with electricity provision involves embodied emissions and incursions on fragile ecosystems. As Norway's capacity for hydropower production is reaching its limits, developers and the state are increasingly investing in wind power farms which are socially and environmentally problematic. Reducing the need for energy is a less harmful approach than a never-ending expansion of production and capacity.

Recommendation: Prefer web hosting or cloud service providers that use data storage centers in Europe.

Ask potential web hosting companies or cloud service providers if they operate their own data centers or lease cloud storage from another company and where their data center is geographically located. Scandinavian data storage facilities are global leaders in energy efficiency and the EU also has high standards for the industry. Other jurisdictions may have far less regulation on the environmental impact of data storage and may run on non-renewable energy sources, for example many Chinese data centers run on coal.

Transportation

Recommendation: Avoid air travel as part of business operations when other options are available and feasible.

Consider adopting a low carbon mobility strategy for your operations.

Organizational policies on low carbon travel help reduce contributions to green house gases directly and also send a signal away from demand for air travel and towards normalizing low carbon transportation options which leads to improved low carbon mobility services. Emissions from air travel represent the least efficient mode of transportation. For example, a rail journey from London to Paris emits 6g of CO₂ per passenger Km compared to over 100g of CO₂ per passenger for an equivalent flight. Restricting air travel for journeys less than 300 miles when there are viable alternatives like rail contribute to meeting emission reduction goals.

Below is an example 'code of conduct on low carbon travel strategies' developed by climate research centers (the Tyndall Center and UiB's Center for Climate and Energy Transformations)

1. Monitor and reduce.

I will keep track of the carbon emissions of my professional activities and set personal objectives to reduce them in line with or larger than the Paris Agreement's carbon emissions commitments as recommended by the IPCC.

2. Consider alternatives.

I will consider use of video conference and streaming to reduce travels. I will encourage meeting organizers to provide video / streaming of meetings. When I need to travel, I will use transportation options with the lowest possible emissions.

3. Plan, prioritize and combine.

I will consider meetings attended based on least amount of carbon emissions. I will plan my travels well in advance to be able to prioritize between travels and combine several activities in the same location when possible. I will justify my travel considering the priority, location and purpose of the event, and the alternative options available.

4. Reduce the footprint of events.

For activities that I organize, I will choose the location giving high priority to a low carbon footprint of travel of the participants, and I will encourage,

incorporate and technically support online speakers and webcasts to reduce unnecessary travel.

5. Support a low-carbon culture.

I will work with my peers, organization/department and funders to value alternative metrics of success and encourage the promotion of low-carbon operations as a realizable alternative to high-carbon operations. I will sensitize others to the need to walk the talk on climate change.

Recommendation: Consider the geographic location of printing presses in relation to transportation needs in order to use the least amount of fossil fuel-based transportation as reasonably possible in the life cycle of your materials.

We live in a globalized world where products often travel long and winding pathways before reaching their endpoint. There are benefits to international trade and specialization which must be weighed against the need for rapid decarbonization in the transportation sector. The first step is to consider environmental externalities within economic decision making - in other words it may cost a little more to do things in a sensible way with regards to carbon emissions. Reducing the distances travelled by products is an important step towards meeting climate goals and reducing pollution.

Paper

Recommendation: Talk to prospective printers about their paper options. When using virgin fiber paper, look for FSC® or PEFC™ certifications.

Recycled paper is not necessarily more sustainable than virgin fiber paper, especially for paper of printing and writing grade for magazines and journals. A mix of virgin fiber and recycled material or entirely recycled paper is also a good choice. Virgin fiber is the beginning of the supply chain for recycled products and the fibers can be recycled about 5 to 6 times for decreasing grades of paper products until they lose integrity and the most efficient use is incineration for energy. In Europe there are many sustainably managed forests which supply the original material. It is common for Scandinavian forests to have paper mills located close by which also reduces emissions from transportation and Scandinavian mills primarily run on renewable energy. One of the motivations for choosing recycled paper in some regions is to prevent paper from ending up in landfills. In Scandinavia, recycling rates are very high and this is less of a concern.

The primary certifications for virgin fiber sourcing are FSC® and PFEC™.

FSC® stands for the Forest Stewardship Council. PFEC™ stands for the Programme for the Endorsement of Forest Certification. Both certifications are good, however PFEC™ covers the processing of timber, not just the forest management and therefore constitutes a more extensive certification of the supply chain.

Recommendation: Avoid paper that is labeled EFC and instead choose the label PFC or TFC when possible.

There are different methods for bleaching paper white. Three acronyms relevant to the bleaching process are:

PCF – Processed chlorine-free

TCF – Totally chlorine-free

ECF – Elemental chlorine-free

Elemental chlorine gas used to be the most common chemical used in processes to bleach pulp until growing concerns about toxicity lead to the development of alternative methods. Today, elemental chlorine has been largely replaced by two primary alternatives: elemental chlorine free (EFC) and process chlorine free (PFC). However, elemental chlorine is still used by some mills and is to be avoided. Manufacturers in North America primarily substituted elemental chlorine with chlorine derivatives, primarily chlorine dioxide, creating the label ECF. The label is a little misleading as the process still uses chlorine. The compound is more stable than elemental chlorine but when it combines with carbon-based compounds (which are the cornerstone of all organic compounds) it still produces dioxins and toxic pollutants which do not break down in water.

Dioxin is a very potent carcinogen. Even if only miniscule amounts find their way into ecosystems, they accumulate up food chains reaching their highest concentration in humans. Dioxin is increasingly being linked to cancers and a list of other serious health problems. Instead of EFC, Sweden's government invested in developing new process technologies which substitute chlorine with oxygen and hydrogen peroxide creating the labels PCF and TCF. While different paper manufacturers have claimed that EFC is not worse than PCF or TCF, environmental research groups such as the World Watch, Conservatree and the Chlorine Free Products Association argue that chlorine based bleaching processes are inferior to the alternatives. The Worldwatch Institute reports that a mill using standard chlorine bleaching releases about 35 tons of organochlorines (dioxins and

chlorinated toxic pollutants) a day. A corresponding ECF mill will release 7-10 tons per day. A PCF/TCF mill releases none.

Paper that includes recycled fibers will be PCF because TCF is only relevant to 100% virgin fiber paper, however they are both good options. Only products deemed acceptable by the Chlorine Free Products Association are granted PCF and TCF logos. Look for the symbols when purchasing paper or ask your printer about their policies on paper procurement and pulp bleaching.

Ink

Recommendation: Ask prospective printers what kinds of ink options they have. Choose non-petroleum based options such as soy ink when possible.

Printing ink can be made from a variety of materials but essentially, ink is pigments suspended in medium. Inorganic inks are made with petroleum-based oils and greases combined with heavy industrial pigments and volatile organic compounds (VOCs). These ingredients have a negative impact on production safety, health and the overall ecological sustainability of product. They also create a problem for recycling and disposal. When papers printed with inorganic inks end up in landfills, VOCs leach into the ground and can contaminate ground water. When they are recycled, the de-inking process produces a sludge that has to be contained and stored so that it doesn't contaminate the environment and drinking water. Even when the paper is recycled several times, the most responsible end point is incineration for energy and this creates a toxic ash that has to be contained and stored. Soy inks use waxes and resins instead of petrochemical binders and organic pigments instead of heavy industrial pigments to create a more sustainable printing ink. Organic inks perform as good or better in terms of vibrance and saturation, are more productive (more prints per unit of ink) and can be used in practically any printing application. Vegetable based ink is also preferable to petroleum-based ink but doesn't produce as vibrant colors as soy based inks can. However, soy based printing ink is slower to dry and unstable on glossy and high paper gauges, which require minor retooling and reorganizing of workflows in print shops, thus the type of ink used is an important choice in choosing a printing press to partner with.

As for soybean production, the majority of soybeans are produced in the United States and Brazil. The American Soybean Association (ASA) partners with the US department of Agriculture to provide the U.S. Soy Sustainability Assurance Protocol (SSAP) to ensure sustainable practices. They provide a certification program called SoySeal which allows any printer, publisher or other ink user to print the SoySeal trademark on publications to tell readers that soy-based ink was used in the production. The use of soybean products for sustainable material substitution has

historically been a double edged sword due to deforestation of the Brazilian Amazon. However, in 2006 new legislation was enacted in Brazil – the Soy Moratorium. According to Greenpeace, which helped craft the agreement, monitoring and enforcement protocols, the amount of soy grown on newly deforested land has been reduced to just 1%. The agreement also prohibits slave labor and protects indigenous lands, although in practice these problems persist. Also, some organizations are concerned that soy producers have simply moved on to previously deforested land that was being used for cattle and driving livestock producers to deforest new areas. Also, the moratorium does not cover the adjacent savannah which is also a threatened ecosystem under pressure from soy and livestock production. The majority of soy produced in the world ends up feeding cattle so this represents one more reason to tackle the issue of overconsuming meat. Furthermore, the current political situation in Brazil is leading to deregulation and increased deforestation, thus ink certified with American SoySeal may be the most sustainable option at this time.

Waste

Recommendation: Set goals and monitor progress on reducing surplus prints and other waste produced by your operations.

Waste can be reduced through more accurate prediction models of how many issues to print. It would be beneficial to develop tools for better matches in supply and demand by tracking trendlines in orders, sales and surplus that never gets distributed to help individual projects make more accurate estimates of how many issues to order. Print on demand solutions should be evaluated.

Pay attention to other areas where your operations are producing waste and consider ways to reduce these flows.

Recycling

Recommendation: Contact BIR and/or mills that produce recycled paper about delivering unmixed ‘printing and writing’ grade paper in bulk. Ask if they prefer materials printed with organic ink to be sorted from materials printed with petroleum-based inks.

It may be possible to deliver surplus prints in bulk directly to a recycling facility rather than mixing them with other paper products which are lower quality, for

example cardboard packaging. Tekstallmenningen may be able to make an agreement and facilitate the collection and transfer of surplus materials to the appropriate entity which would extend the life of the fiber.

Resources

- EU Eco-Management and Audit Scheme (EMAS)
https://ec.europa.eu/environment/emas/index_en.htm
- ISO 14000 Family (International Organization for Standardization – Environmental Management)
<https://www.iso.org/iso-14001-environmental-management.html>
- IPCC, 2019: Summary for Policymakers.
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https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter8.pdf
- Guide to making informed decisions about wood and paper based procurement by the Sustainable Procurement of Forest Products group:
<https://sustainableforestproducts.org/>
- Forest Stewardship Council: <https://fsc.org/en>
- Program for the endorsement of forest certification: <https://www.pefc.no/>
- The Chlorine Free Products Association (CFPA): <http://www.chlorinefreeproducts.org/>
- Conservatree’s “Chlorine Free Processing”: A comprehensive information source about chlorine used in the paper manufacture process.
<http://www.conservatree.org/paper/PaperTypes/CFDisc.shtml>
- List of European Commission reports related to the EU VOC solvents directive:
https://ec.europa.eu/environment/archives/air/stationary/solvents/activities/03_en.htm
- A summary about printing inks: <https://www.lumi.com/blog/ask-lumi-sustainable-ink>

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- Greenpeace on Brazil's Soy Moratorium: <https://www.greenpeace.org/usa/victories/amazon-rainforest-deforestation-soy-moratorium-success/>
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- U.S. Soybean Sustainability Assurance Protocol (SSAP): <http://ussec.org/wp-content/uploads/2016/03/20160531-SSAP-1.pdf>
- Bioregion Vestland: <https://bioregionvestland.com/index>
- Norwegian recycling advice: <https://sortere.no/privat/produkttype/472/Tidsskrift>