Summary: Bringing environmental awareness of public libraries to the 2020s

Introduction: Sustainable development and the role of public libraries in environmental work

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Background to the environmental work of public libraries

The state of the environment – climate change and other environmental *problems* – have become social issues. Many countries and municipalities are committed to pursuing carbon neutrality and report on the implementation of the United Nations Sustainable Development Goals (SDGs). Citizens, and young people in particular, are also concerned about the environment. Therefore, public libraries cannot ignore environmental objectives. The aim is clear, but it is not always easy to say why, or how, action should be taken. The starting point of the *Bringing environmental awareness of public libraries to the 2020s (Yleisten kirjastojen ympäristötietoisuus 2020-luvulle)* project was that environmental work needs to be based on understanding what libraries can influence and why it is worth taking action.

The project sought answers to questions about what sustainable development means in the framework of libraries, whether the environmental work of libraries has any real significance, and whether we have not already done our part – after all, it is often assumed with a little arrogance that the environmental impact of libraries is already so positive that nothing more needs to be done. It is a trap that induces passivity and obstructs action – just like the seemingly realistic fear that we cannot do anything that really matters.

The question of what small individual actions matter is probably the most effective 'paralysing agent' in environmental work. The question implies that what I or we do is irrelevant and that someone else should take action. It is not easy to refute this argument and demonstrate the importance of individuals or organisations in environmental work, even if the greatest threat to the environment is elsewhere. However, there is no reason for paralysis. According to René Girard, our actions and desires are based on imitation: we imitate others who we want to be like. When we imitate our role models, we also end up desiring the same things that they

desire.[1] Therefore, it can be argued that the more social actors focus on environmental values, the more others follow and begin to imitate the original actions. The environmental work of public libraries could thus serve as an example of responsibility for other municipal actors.
Another natural option would be to emphasise the role of public libraries in opening opportunities for constructive action. Libraries can offer a discussion forum for civic activities. Libraries can also provide *reliable, up-to-date and relevant* environmental information to all on an equal footing – and oppose fake news and misrepresentation. This was strongly highlighted in the value survey for library staff: the staff of public libraries value the accessibility and reliability of information and materials, as well as democracy, equality and non-discrimination.

The environmental objectives of libraries are often based on the concept of *sustainable development*, which is, however, ambiguous. Sustainable development tends to be divided into economic, social and ecological sustainability, but the conceptual consensus ends there, and it is not clear what, for example, economically sustainable development means. Sustainable development is also often defined in such a general way that no measures can be derived from it. According to Sitra's dictionary of future terms, *sustainable development takes into account the environment, people and the economy equally in decision-making and operations, and aims to secure good living opportunities for future generations*.[2]
The location of public libraries on the map of sustainable development has yet to be precisely defined, and the concept is not quite clear to everyone. According to the value survey conducted by the project, the values of sustainable development are considered to be very important, but the exceptions were *social responsibility* and *the sharing and circular economy* – even though both are key factors for the sustainability of libraries.
Despite this, libraries have usually placed themselves in the 'good' column, invoking two arguments. The positive argument is that libraries have circulated their materials throughout history and represent the circular economy in its original form. The negative argument has been the fact that libraries do not consume non-renewable raw materials or cause high emissions. The emissions from libraries are indeed relatively low, as the carbon footprint measurements carried out by this project showed. However, the effectiveness of the argument is reduced by the fact that libraries often operate in old buildings which are not energy efficient. In addition, traditional

[1] Girard: Violence and the Sacred (1972).
[2] Dictionary – Sitra

materials are printed on paper. Libraries, however, have no significant influence on these factors: they fall within the remit of other actors.

This state of affairs can easily lead to passivity: *we have already done everything in our power and there is nothing more we can do*. However, the current situation calls for more positive action that can be shown to have an impact. We need calculations of the carbon footprint and handprint of public libraries, as well as roadmaps to achieve the SDGs. The environmental awareness of public libraries must be brought to the 2020s.

The environmental work of public libraries has also been obscured by the origins of the *Green Library* movement. The movement was launched by architects, and its focus has been on library buildings. The debate has thus focused on energy efficiency and the technical characteristics of buildings, such as water consumption and air conditioning. In addition, the location of libraries and the implementation of the *Green Office* principles, mainly sorting and recycling of paper and waste, have been examined. The carbon footprint measurements carried out by this project showed that buildings are indeed the largest emitter of public libraries, while the Green Office principles play a relatively minor role. At the same time, the survey showed that the main obstacle to the environmental work of libraries is that libraries are located in old buildings and use outdated technology.

However, the environmental work of public libraries is not just about energy efficiency of buildings or recycling and sorting. Back in the day, I made this point by saying that we cannot rebuild all libraries, but we can be more environmentally conscious in our buildings. At the same time, I called for green library services, which include easy access to reliable and relevant environmental information and, for example, shared facilities and equipment.[3] In recent years, new concepts have been introduced to the environmental debate of libraries: in addition to the carbon footprint, there is now discussion about, for example, the carbon handprint and the sharing and circular economy.

[3] Sahavirta, Harri 2012: "Showing the Green Way –- Advocating Green Values and Image in a Finnish Public Library", IFLA Journal, vol 38, Issue 2.

Bringing environmental awareness of public libraries to the 2020s

The *Bringing environmental awareness of public libraries to the 2020s* (Yleisten kirjastojen ympäristötietoisuus 2020-luvulle) project started with a survey that looked at the level of environmental awareness of public libraries. A total of 166 libraries replied to the survey, so the results can be considered reliable. The survey was complemented by a value survey for library staff, which focused on environmental values. These surveys provide a good picture of the values and expectations of library staff regarding the future of the library, but also of the environmental work and environmental management of libraries. The results were compared with a corresponding survey carried out in 2012.

At the same time as the survey, the carbon footprint measurements of libraries were started. The project measured the carbon footprint of 13 libraries of different sizes located in different parts of Finland. At first, it was determined which of the environmental impacts of libraries could be included in the calculation, and the necessary data was collected. After this, measuring the carbon footprint of individual libraries was relatively simple. In addition, we calculated, for example, the carbon footprint of a Finnish library card and a borrowed book. These results were the subject of national training sessions attended by some 300 people. The concept of the carbon handprint was analysed and also approached through the UN SDGs. These were discussed in a workshop which was used to select key SDGs for libraries.

The research section of the project was carried out in cooperation with Positive Impact Finland Oy, and the project produced quite a lot of new information. These materials have been collected on the *Green Library* pages, which were created on the Libraries.fi website for information purposes.[4] The pages are mainly in Finnish and provide information on the environmental work and projects of public libraries. There are also news and education sections. The purpose of the website is to serve as a platform for reporting and archiving the environmental work of Finnish libraries in the future. The project has also promoted information and networking at national level by setting up an open *Green Library* Facebook page and a group where library users can discuss the environmental work of libraries.

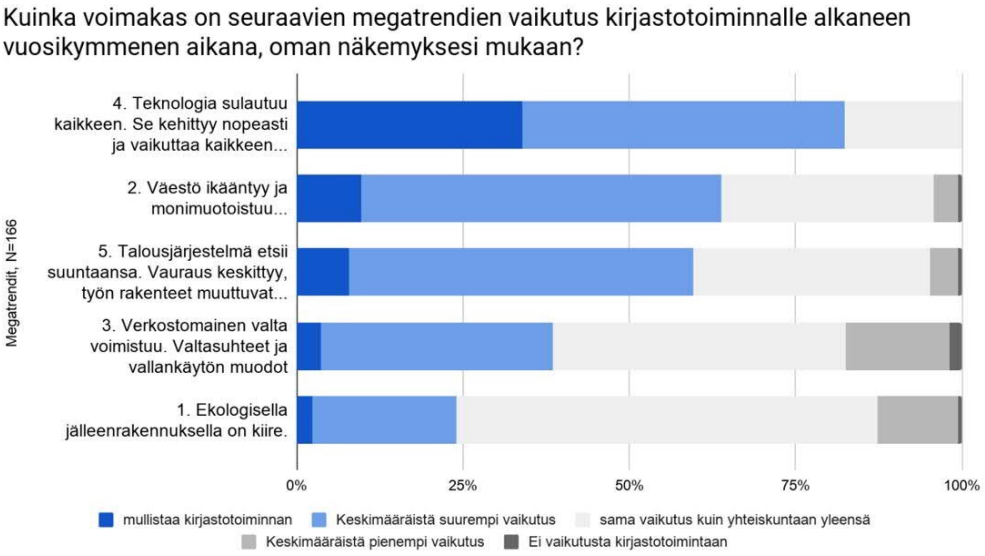
[4] Green Library | Libraries.fi

Survey on the environmental awareness of public libraries

Harri Sahavirta

Future megatrends, values and valued areas of libraries

The survey examined trends that are expected to have the greatest impact on the future of libraries and the importance of environmental factors in this respect. The topic was approached through Sitra's *Megatrends 2020*.[5] These include five developments: (1) Ecological reconstruction is a matter of urgency; (2) The population is ageing and diversifying; (3) Relational power is strengthening; (4) Technology is becoming embedded in everything; (5) The economy is seeking direction. The assumption was that the ageing and increasing diversity of the population will have a major impact on the provision of library services and that digitalisation will change not only the nature of work in libraries, but also the behaviour of the customer base. The importance of the economy, power structures or ecological factors could not be predicted more specifically.
The responses to the survey formed a picture that largely corresponded to these preliminary expectations, but the modest role of environmental aspects came as a surprise. The impact of the megatrends on the future of libraries is presented in Figure 1:



Kuinka voimakas on seuraavien megatrendien vaikutus kirjastotoiminnalle alkaneen vuosikymmenen aikana, oman näkemyksesi mukaan?	How strong is the impact of the following megatrends on library operations during the current decade, in your opinion?

[5] Megatrends – Sitra

4. Teknologia sulautuu kaikkeen. Se kehittyy nopeasti ja vaikuttaa kaikkeen...	4. Technology is becoming embedded in everything. It is evolving fast and affects everything...
2. Väestö ikääntyy ja monimuotoistuu...	2. The population is ageing and diversifying...
5. Talousjärjestelmä etsii suuntaansa. Vauraus keskittyy, työn rakenteet muuttuvat...	5. The economy is seeking direction. Wealth is concentrated, the structures of work are changing...
3. Verkostomainen valta voimistuu. Valtasuhteet ja vallankäytön muodot	3. Relational power is strengthening. Power relations and forms of power
1. Ekologisella jälleenrakennuksella on kiire.	1. Ecological reconstruction is a matter of urgency.
mullistaa kirjastotoiminnan	Will revolutionise library operations
Keskimääräistä suurempi vaikutus	Greater than average impact
sama vaikutus kuin yhteiskuntaan yleensä	The same impact as on society in general
Keskimääräistä pienempi vaikutus	Smaller than average impact
Ei vaikutusta kirjastotoimintaan	No impact on library operations
Megatrendit, N=166	Megatrends, N = 166

Figure 1: The impact of megatrends on library operations

According to preliminary assumptions, technological development and digitalisation are expected to have the greatest impact on the day-to-day activities of public libraries – about a third of respondents expect them to revolutionise library operations. As the materials become digital and their production and distribution take on new forms, the basic operations of libraries will undergo a transformation. Technological developments also have an impact on the tools used to carry out library work.

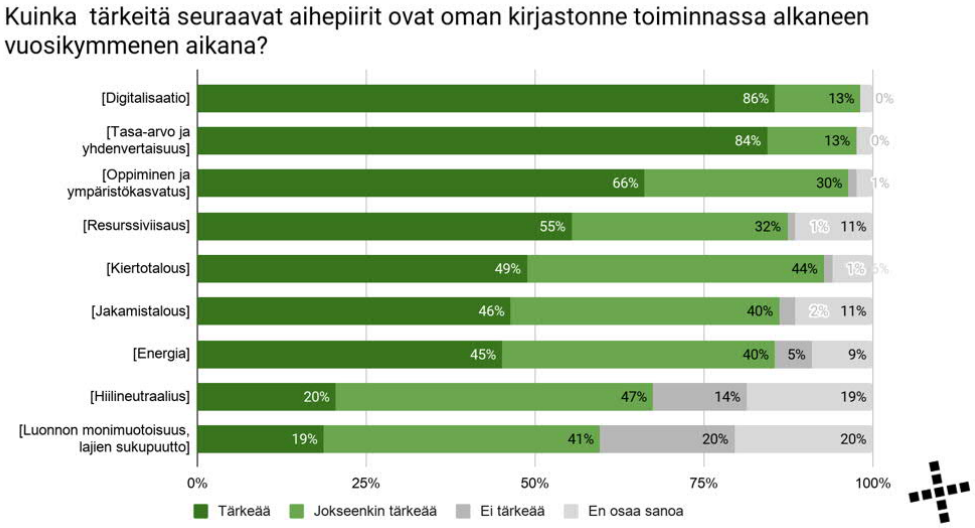
The ageing and increasing diversity of the population is also an identified challenge. The ageing population needs new kinds of services. In addition to ageing, the population is also growing more diverse, and the services of libraries can no longer be tailored to the needs of the majority of the population. However, increasing diversity is not considered to revolutionise library operations: libraries already take into account different age groups and different customer groups.

Relational power and the economy seeking direction are quite abstract trends, and it is not necessarily clear what they refer to. However, libraries have understood that the economy is an important factor – no matter where it seeks direction. The same applies to power – power structures have a huge impact on a service that is financed by tax revenues.

Public libraries identify critical trends well, but the situation is different with regard to environmental factors. Fewer than a quarter of respondents considered the megatrend related to the environment as a significant change factor. This may be due to the wording: *ecological reconstruction is a matter of urgency* could be interpreted as referring only to the repair of damage that has already been done. Thus, the result might have been different if the wording of

the trend clearly referred to, for example, preventing climate change. In the light of the *megatrends*, it seems that environmental challenges are not thought to affect the operations of the library any more than they do the rest of society. The result reflects the attitude described in the introduction: libraries have been circulating materials for centuries and do not produce toxic or harmful emissions, so their conscience is clear. Libraries could, however, be urged to play a more active role, since this is not only about repairing the damage done and reducing their own carbon footprint, but also about increasing the carbon handprint of customers and introducing new tools.

In addition to the megatrends, the survey also asked about themes related to sustainable development considered important by libraries. In practice, these themes referred to values. *Equality and non-discrimination* represent the social aspect of sustainable development, and their value-ladenness is clear. *Learning and environmental education* refer to the appreciation of knowledge and the environment, while *resource wisdom and the sharing and circular economy* refer to economic values, but also to environmental values. *Carbon neutrality and biodiversity* are purely ecological values. The question, therefore, measured what libraries or library staff value, albeit indirectly – this is particularly true for *digitalisation*, which can be considered as increasing sustainability, but which is not a value in itself. The areas valued by libraries are shown in Figure 2:



Kuinka tärkeitä seuraavat aihepiirit ovat oman kirjastonne toiminnassa alkaneen vuosikymmenen aikana?	How important are the following themes in the operations of your library during the current decade?
[Digitalisaatio]	[Digitalisation]

[Tasa-arvo ja yhdenvertaisuus]	[Equality and non-discrimination]
[Oppiminen ja ympäristökasvatus]	[Learning and environmental education]
[Resurssiviisaus]	[Resource wisdom]
[Kiertotalous]	[Circular economy]
[Jakamistalous]	[Sharing economy]
[Energia]	[Energy]
[Hiilineutraalius]	[Carbon neutrality]
[Luonnon monimuotoisuus, lajien sukupuutto]	[Biodiversity, species extinction]
Tärkeää	Important
Jokseenkin tärkeää	Somewhat important
Ei tärkeää	Not important
En osaa sanoa	I don't know

Figure 2: Themes appreciated by libraries 2020

The responses to the question were in line with the megatrends. In both cases, the technological (digitalisation) and social aspects, as well as the economy, were judged to be significant, but ecological values received less recognition. *Carbon neutrality* and *Biodiversity* were clearly lagging after other thematic areas – only around 20% of respondents considered them "important". When evaluating the result, it should be noted that the question could perhaps been framed better: the themes are ambiguous and partly overlapping.

The survey result that public libraries value not only social sustainability but also technological and economic values, was so surprising that the project carried out a small-scale *value survey* in autumn 2021. The survey listed a number of values relevant to the library and asked whether they were relevant and related to collections, facilities, services or events. A total of 184 responses were received, so the results can be considered reliable. The value survey refined and corrected the first survey result, as the respondents did not appreciate *technological progress* as such: progress was considered important, but only 12% of the respondents considered it to be a core value of the library. By contrast, technological competence, i.e. *digital and civic competence*, rose considerably higher, as 55% of the respondents considered it a central value for the library. Economic values were even less popular and mainly associated with service design – although they were not essential even in this respect. *Economy* was considered a core value by 33% of the respondents and *productivity* by only 4%.

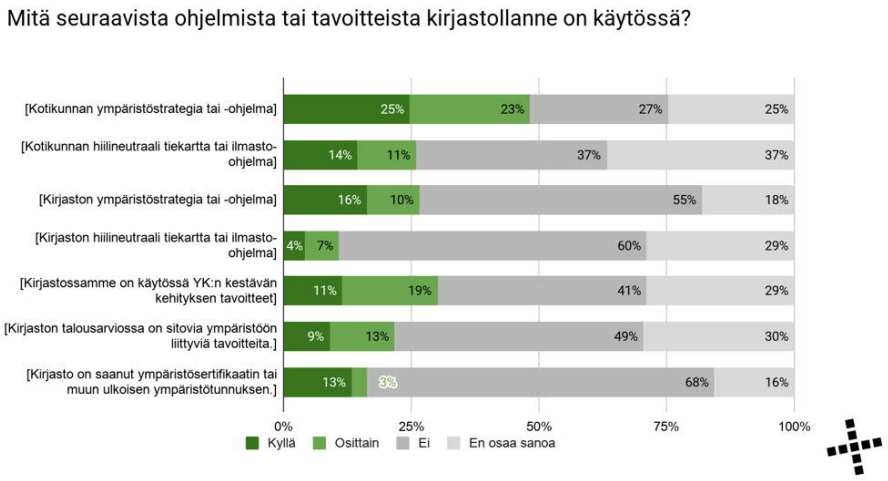
In the end, the most important values for the staff of libraries are *equality and non-discrimination* as well as *democracy and human values*. More than 80% of the respondents considered these to be core values of the library, and they were somewhat unexpectedly valued above the typical values of libraries – *diversity* and *freedom of expression* – most notably, they took precedence over

social responsibility. The so-called cultural values rose alongside and above the social values. All respondents considered the *accuracy, reliability and accessibility of information and materials* to be either significant or very significant, and most also highlighted them as core values of the library. The accuracy of information is, of course, very strongly associated with collections, but also with services and events. Accessibility of information, in turn, relates to all aspects of library operations.

In the values survey, environmental values also took precedence over economic and technical values. However, they were far from reaching the level of social or cultural values. Half of the respondents regarded *environmental awareness* as a core value. A little unexpectedly, it was valued higher than the *sharing and circular economy* (48%). The result of the value survey confirms the conclusion drawn from the first survey – about half of the library staff are very environmentally conscious. On the other hand, it should be noted that only less than 10% of the respondents stated that environmental values are not significant. Thus, the environmental values of library staff are significant, although not necessarily the most important values.

Environmental management of libraries

The values of libraries should be reflected in their strategy and management – i.e. in their environmental programmes and environmental management. These, in turn, should guide the day-to-day operations of libraries. The steering effect of the values and the means of managing the environment of libraries were determined by asking what kind of environmental programmes or objectives the library has in use. The programmes and objectives were divided into the environmental programmes of the municipality and library, as well as general environmental schemes or indicators, such as the UN SDGs and environmental certificates. Libraries' environmental programmes and objectives are shown in Figure 3:



Mitä seuraavista ohjelmista tai tavoitteista kirjastollanne on käytössä?	Which of the following programmes or objectives does your library use?
[Kotikunnan ympäristöstrategia tai -ohjelma]	[Environmental strategy or programme of the municipality]
[Kotikunnan hiilineutraali tiekartta tai ilmasto-ohjelma]	[Carbon neutral roadmap or climate programme of the municipality]
[Kirjaston ympäristöstrategia tai -ohjelma]	[Environmental strategy or programme of the library]
[Kirjaston hiilineutraali tiekartta tai ilmasto-ohjelma]	[Carbon-neutral roadmap or climate programme of the library]
[Kirjastossamme on käytössä YK:n kestävän kehityksen tavoitteet]	[Our library uses the UN SDGs]
[Kirjaston talousarviossa on sitovia ympäristöön liittyviä tavoitteita.]	[The library budget contains binding environmental targets.]
[Kirjasto on saanut ympäristösertifikaatin tai muun ulkoisen ympäristötunnuksen.]	[The library has an environmental certificate or other external environmental award.]
Kyllä	Yes
Osittain	Partly
Ei	No
En osaa sanoa	I don't know

Figure 3: Environmental programmes and objectives in use by libraries for 2020

Based on the survey, environmental objectives are not well known: Some 20–30% of the respondents could not say whether the library has a specific environmental programme. In addition, the number of negative responses was quite high, which is probably explained by the fact that there is often only one environmental management system in place and that few libraries have adopted all of these environmental programmes or objectives. When interpreting the result, the answers should be added together, which gives a much more positive picture of the environmental management of public libraries. Naturally, this also increases the margin of error.

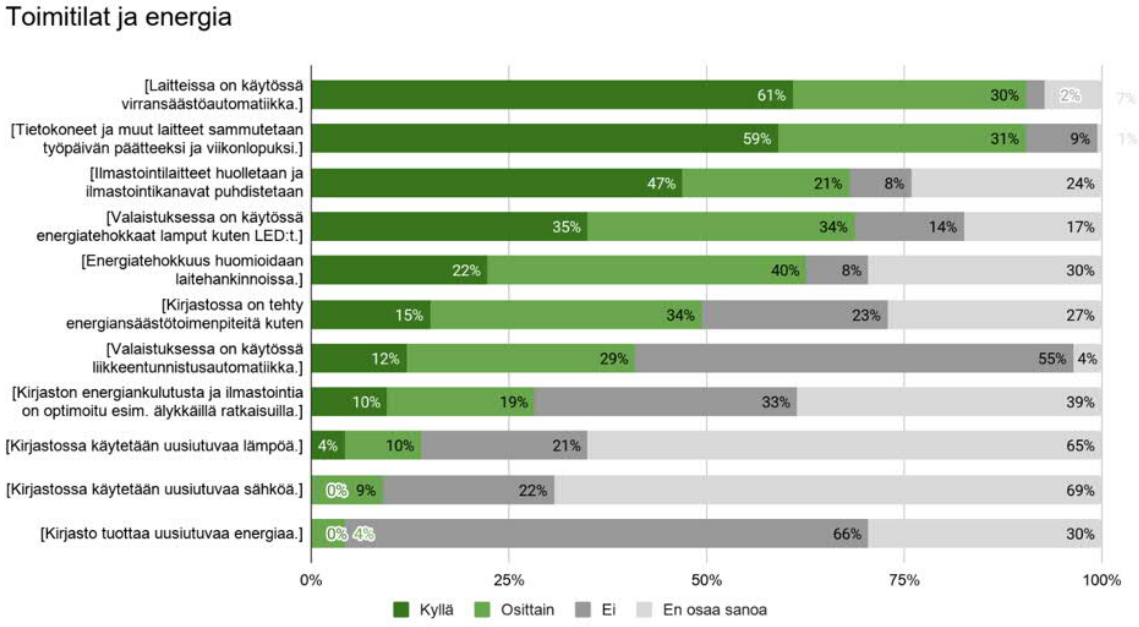
Roughly speaking, many libraries use the environmental strategy or programme of the municipality (50%), while the municipality's carbon neutral roadmap/climate programme has been adopted less often (25%). However, the options overlap in part, and the library may have only one or both of them. Thus, it is estimated that more than half of the libraries follow a municipal environmental programme and almost one-fifth utilise several environmental systems.
The use of libraries' own environmental programmes is less common and, in addition, when interpreting the result, it must be borne in mind that they may have their own environmental strategy or roadmap or both. A conservative estimate would be that about 10% of public libraries are active in environmental work and they use several environmental programmes, while about one-third of libraries use an environmental system of their own. These rough estimates are based on the views of the survey respondents, so the margin of error is high.
The result is interesting if compared to the corresponding results of the *Sustainable Development in Libraries (Kestävä kehitys kirjastoissa)* project in 2012. At that time, it was noted that there was a lot room for improvement in environmental management: only 20% of the respondents knew that their municipality had an environmental programme or that the library had guiding principles for increasing energy efficiency. Environmental awareness and management have thus clearly improved considerably in less than ten years. However, when drawing conclusions, it should be borne in mind that the 2012 and 2020 surveys were not comparable. In the meantime, the environmental work of libraries has undergone a tremendous qualitative change, which becomes tangible when we remember that the 2012 survey did not even mention the circular and sharing economy or carbon footprint measurement.

Practical environmental work of libraries

In addition to the increase in quantity, the environmental work of public libraries underwent qualitative changes during the 2010s. One such change was the understanding of the economic aspect of sustainable development. In the 2012 survey, the focus was on purchasing, investments and building maintenance, meaning that the environmental work of public libraries was perceived as the purchase of environmentally-friendly products and energy-saving of buildings. In addition, the emphasis was on the third economic aspect, namely how to reduce energy bills, waste management fees or even paper consumption.

As stated above, the importance of buildings and economic aspects should not be underestimated. Energy-efficient buildings and the principles of the Green Office are the basis for environmental work, and economic decision-making where these environmental aspects are taken into account is the first step towards a sustainable library. In 2012, there was still a lot left to do in this respect: about half of the respondents considered that environmental impacts were not being considered and only one in five knew that they affected decisions made in the library. On the other hand, energy saving, waste sorting and the reduction of paper consumption were considered relatively well in library operations (in addition to commuting). These practices were used in about half of the libraries.

However, the change to the 2020 survey is significant. This time, the survey looked at the broader meaning of premises and energy consumption. This is shown in Figure 4, which explains the energy consumption of premises:



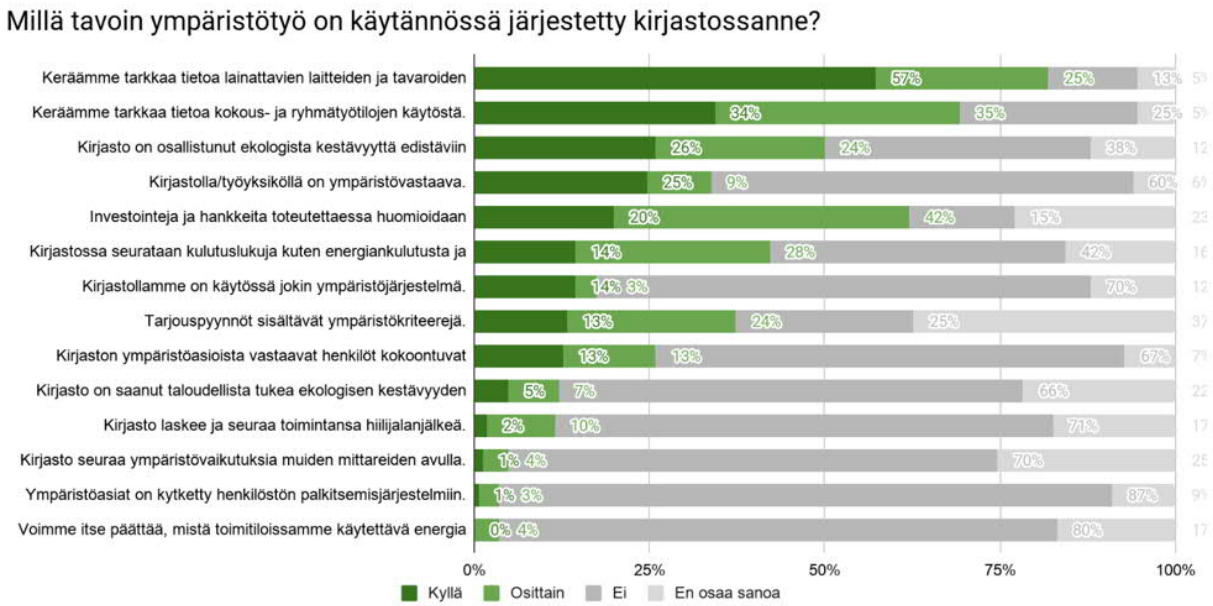
Toimitilat ja energia	Premises and energy
[Laitteissa on käytössä virransäästöautomatiikka.]	[Equipment have automatic power-saving modes.]
[Tietokoneet ja muut laitteet sammutetaan työpäivän päätteeksi ja viikonlopuksi]	[Computers and other equipment are shut down at the end of the working day and for the weekend]
[Ilmastointilaitteet huolletaan ja ilmastointikanavat puhdistetaan	[Air conditioners are maintained and ventilation ducts cleaned]
[Valaistuksessa on käytössä	[Lighting uses
energiatehokkaat lamput kuten LED:t.]	energy-efficient options, such as LEDs.]
[Energiatehokkuus huomioidaan laitehankinnoissa.]	[Energy efficiency is taken into account in equipment purchases.]
[Kirjastossa on tehty	[The library has taken

energiansäästötoimenpiteitä kuten	energy-saving measures, such as
[Valaistuksessa on käytössä liikkeentunnistusautomatiikka]	[Lighting uses automatic motion sensors.]
[Kirjaston energiankulutusta ja ilmastointia on optimoitu esim älykkäillä ratkaisuilla.]	[The library's energy consumption and air conditioning have been optimised, for example with smart solutions.]
[Kirjastossa käytetään uusiutuvaa lämpöä]	[The library uses renewable heating.]
[Kirjastossa käytetään uusiutuvaa sähköä]	[The library uses renewable electricity.]
[Kirjasto tuottaa uusiutuvaa energiaa.]	[The library produces renewable energy.]
Kyllä	Yes
Osittain	Partly
Ei	No
En osaa sanoa	I don't know

Figure 4: Premises energy consumption 2020

Currently, approximately 90% of the equipment has automatic power saving modes and is turned off overnight. Nearly 70% of libraries have paid attention to library lighting (LED lights) and half of libraries have taken other energy-saving measures. By contrast, the use of renewable energy is still very limited. In other words, libraries have taken steps to reduce their negative environmental impact. Libraries also recycle and sort more than they did a decade ago.

However, the most significant change is probably the fact that the starting point for the 2020 survey is quite different from 2012. Borrowed equipment and goods as well as shared equipment and facilities – in other words, the emerging circular and sharing economy – have become elements of the environmental work of libraries. Figure 5 shows how practical environmental work has been organised in libraries:



Millä tavoin ympäristötyö on käytännössä järjestetty kirjastossanne?	How is the environmental work organised in practice in your library?
Keräämme tarkkaa tietoa lamattavien laitteiden ja tavaroiden Keräämme tarkkaa tietoa kokous- ja ryhmätyötilojen käytöstä.	We collect accurate information about the use of borrowed equipment and goods We collect accurate information about the use of meeting and group work spaces.
Kirjasto on osallistunut ekologista kestävyyttä edistäviin Kirjastolla/työyksiköllä on ympäristövastaava.	The library has participated in activities promoting ecological sustainability The library/unit has an environmental manager.
Investointeja ja hankkeita toteutettaessa huomioidaan	Investments and projects are implemented taking into account
Kirjastossa seurataan kulutuslukuja kuten energiankulutusta ja	The library monitors consumption figures, such as energy consumption and
Kirjastollamme on käytössä jokin ympäristöjärjestelmä.	Our library has an environmental system in place.
Tarjouspyynnöt sisältävät ympäristökriteerejä.	Calls for tenders contain environmental criteria.
Kirjaston ympäristöasioista vastaavat henkilöt kokoontuvat	Persons responsible for the environmental issues of the library meet
Kirjasto on saanut taloudellista tukea ekologisen kestävyyden	The library has received financial support for ecological sustainability
Kirjasto laskee ja seuraa toimintansa hiilijalanjälkeä.	The library calculates and follows the carbon footprint of its operations.
Kirjasto seuraa ympäristövaikutuksia muiden mittareiden avulla. Ympäristöasiat on kytketty henkilöstön palkitsemisjärjestelmiin.	The library monitors environmental impacts using other indicators. Environmental issues are linked to staff incentive schemes.
Voimme itse päättää, mistä toimitiloissamme käytettävä energia	We can decide for ourselves the origin of the energy used in our premises
Kyllä	Yes
Osittain	Partly
Ei	No

En osaa sanoa	I don’t know

Figure 5: Practical environmental work at libraries 2020

Libraries have equipment and goods people can borrow, as well as spaces that can be booked for shared use – and their use is closely monitored. At the same time, sustainable economy and environmental considerations are increasingly taken into account in purchasing and investments. Another novelty is that about a quarter of libraries have participated in environmental projects and an equal number have a person responsible for environmental issues. However, the use of accurate indicators to measure the environmental impact of libraries is still limited. This is probably partly because there have not been many suitable environmental indicators for libraries.

Library collections and their environmental impact

The circular and sharing economy have increased awareness of the environmental impact of library services. At the same time, libraries have realised that the collection management of libraries has environmental impacts. These can be divided into four categories: (1) purchasing of materials and its environmental impact, (2) durability and life cycle of materials, covering materials with adhesive plastic, as well as repair and removal of materials, (3) treatment of removed materials: recycling, sorting, reuse, (4) environmental impact of digital materials (compared to physical materials)

In practice, the environmental impact of collections (in purchasing) is either secondary or cannot be influenced. Public libraries acquire extensive quality literature and other materials, but the criteria are related to content – the purchasing is not affected by, for example, on what kind of paper or where the book was printed. Environmental impacts may also be difficult to assess, which emerged when assessing the carbon footprint of an e-book – digital content is emission-free, but there is no reliable data on the environmental impacts of data transfer and storage.

Thus, the environmental work concerning library materials and collections focuses mainly on the handling and life cycle of physical materials – and to some extent on the launch of e-materials. Figure 6 shows how libraries handle materials.

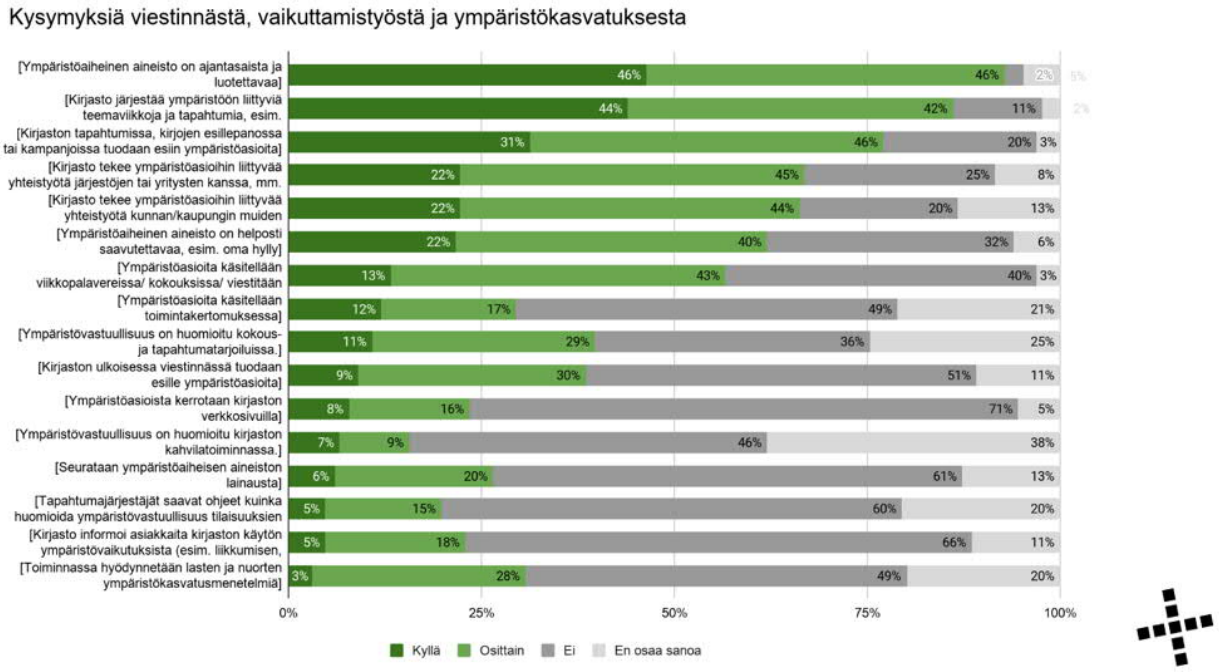
Kysymyksiä kokoelmista, näiden hoitamisesta ja erilaisista hankinnoista	Questions about collections, their management them and different purchases
Aineistoa korjataan ja paikataan pidentäen käyttöikää.	Materials are repaired and mended, extending their service life.
Poistuva aineisto ohjataan uudelleenkäyttöön.	Removed material is diverted for reuse.
Poistuva aineisto ohjataan kierrätykseen jätteenä.	Removed material is sent for recycling as waste.
Aineistoa tuotetaan lisääntyvässä määrin digitaaliseen muotoon.	Materials are increasingly produced in digital form.
Ympäristökriteerit ovat mukana tavarahankinnoissa	Environmental criteria are included in the purchasing of goods
Sähköisiä aineistoja tai palvelukanavia hankittaessa yksi perusteluista on ollut	When purchasing electronic materials or service channels, one of the criteria has been
Aineistohankinnoissa huomioidaan ekologisuus (esim. hankittavan aineiston	The material purchases take into account ecology (e.g. acquired material's
Ympäristökriteerit ovat mukana palveluhankinnoissa.	The environmental criteria are included in service purchases.
Kirjastotia on ohjeistus ympäristöystävällisyyden ja	Libraries have guidelines for environmental friendliness and
Aineistoa ei muoviteta	Materials are not covered with adhesive plastic
Kyllä	Yes
Osittain	Partly
Ei	No
I don't know	I don't know

Figure 6: Environmental impact of collections 2020

Public libraries commendably take into account environmental factors related to collections insofar as they are within the library's own decision-making power: materials are repaired and recycled.

Another aspect related to collections and materials is the provision of environmental information and materials. Providing open access to reliable and up-to-date environmental information and

other materials could be considered as a core task of an environmentally conscious library. It is surprising that only less than 50% of the respondents considered the library's environmental material to be up-to-date and reliable – although 90% of the respondents thought that the material was at least partly relevant. Similarly, raising awareness of environmental issues in the form of events or presentations is obviously not very regular or systematic, although most libraries do it. Only 22% of libraries had invested in making environmental materials easy to find. Environmental or eco-shelves have not yet become more common in Finnish libraries, and only 6% of libraries systematically follow the lending of environmental material. This information is shown in Figure 7:



Kysymyksiä viestinnästä, vaikuttamistyöstä ja ympäristökasvatuksesta	Questions on communication, advocacy and environmental education
Ympäristöaiheinen aineisto on ajantasaista ja luotettavaa	Environmental material is up-to-date and reliable
Kirjasto järjestää ympäristöön liittyviä teemaviikkoja ja tapahtumia, esim. ympäristöä…	The library organises environmental-related themed weeks and events, e.g. the environment…
Kirjaston tapahtumissa, kirjojen esillepanossa tai kampanjoissa tuodaan esiin ympäristöasiota	The library's events, book presentation or campaigns highlight environmental issues…
Kirjasto tekee ympäristöasioihin liittyvää yhteistyötä järjestöjen taa yritysten kanssa, mm…	The library cooperates with organisations and businesses in environmental matters, for example…
Kirjasto tekee ympäristöasioihin liittyvää yhteistyötä kunnan/ kaupunkiin muiden toimijoi..	The library cooperates on environmental issues with the municipality/town/city and other actors.

Ympäristöaiheinen asento on helposti saavutettavaa, esim. oma hylly	Environmental material is easily accessible, e.g. on its own shelf
Ympäristöasioita käsitellään viikkopalavereissa/ kokouksissa/ viestitään sl	Environmental issues are discussed in weekly meetings/communicated to stakeholders.
Ympäristöasioita käsitellään toimintakertomuksessa	[Environmental responsibility is taken into account in catering for meetings and events]
Ympäristövastuullisuus on huomioitu kokous- ja tapahtumatarjoiluissa	Environmental responsibility is taken into account in catering for meetings and events
Kirjaston ulkoisessa viestinnässä tuodaan esille ympäristöasioita	The library's external communication highlights environmental issues
Ympäristöasioita kerrotaan kirjaston verkkosivulla	Environmental issues are explained on the library's website
Ympäristövastuullisuus on huomioitu kirjaston kahvilatoiminnassa.	Environmental responsibility is taken into account in the library café's operations.
Seurataan ympäristöaiheisen aineiston lainausta	The lending of environmental material is monitored.
Tapahtumajärjestäjät saavat ohjeet kuinka huomioida ympäristövastuullisuus tilaisuuksien…	Event organisers are given instructions on how to take environmental responsibility into account for events…
Kirjasto informoi asiakkaita kirjaston käytön ympäristövaikutuksista (esim. liikkumisen, ain…	The library informs customers about the environmental impact of using the library (e.g. transport, …
Toiminnassa hyödynnetään lasten ja nuorten ympäristökasvatusmenetelmiä	Environmental education methods for children and young people are utilised in operations.
Kyllä	Yes
Osittain	Partly
Ei	No
En osaa sanoa	I don't know

Figure 7: Public libraries' environmental materials and communications 2020

Challenges of libraries' environmental work in the light of the survey

The survey of the *Bringing environmental awareness of public libraries to the 2020s* project showed that Finnish libraries are ecologically, socially and economically responsible actors. Libraries follow the principles of sustainable development, but they also want to improve and reduce the environmental impact of their operations. The challenges of the environmental work of libraries have been identified and can be summarised in two main points:

1. Most of the environmental impacts of libraries are caused by buildings, but the libraries themselves have no say in the decisions concerning buildings. About half of library staff believe that the main obstacle to reducing the environmental impact of libraries is that decisions are made elsewhere or that either the building or the technology is outdated and there are no resources to repair them.

2. Collections and materials are another important environmental factor, one which libraries can influence: libraries can reduce the use of adhesive plastic book covering and unnecessary transportation of material, improve material circulation and extend life cycles.

Consequently, responsibility for the environmental impact of public libraries remains largely with property managers and municipal decision-makers. The message is clear: if the environmental impact of municipal services is to be reduced and national carbon neutrality targets are to be achieved, the focus must be on the consumption of municipal properties and the state of the technology. This dependence on other actors often feels frustrating to the staff of libraries, but it also has a positive side: when the municipality's environmental strategy is implemented, solutions must also be provided for the energy consumption, equipment and sorting of libraries.
On the other hand, the results show that libraries need to think about their activities from a new perspective. The lending of materials and goods is a good example of the sharing and circular economy, reducing the need to personally own everything. The handling and life cycle of materials should also be considered from an environmental perspective. The numbers of volumes obtained, the covering of books with adhesive plastic and the handling of removed books have an environmental impact and can be influenced in libraries.

Public libraries' carbon footprint and handprint

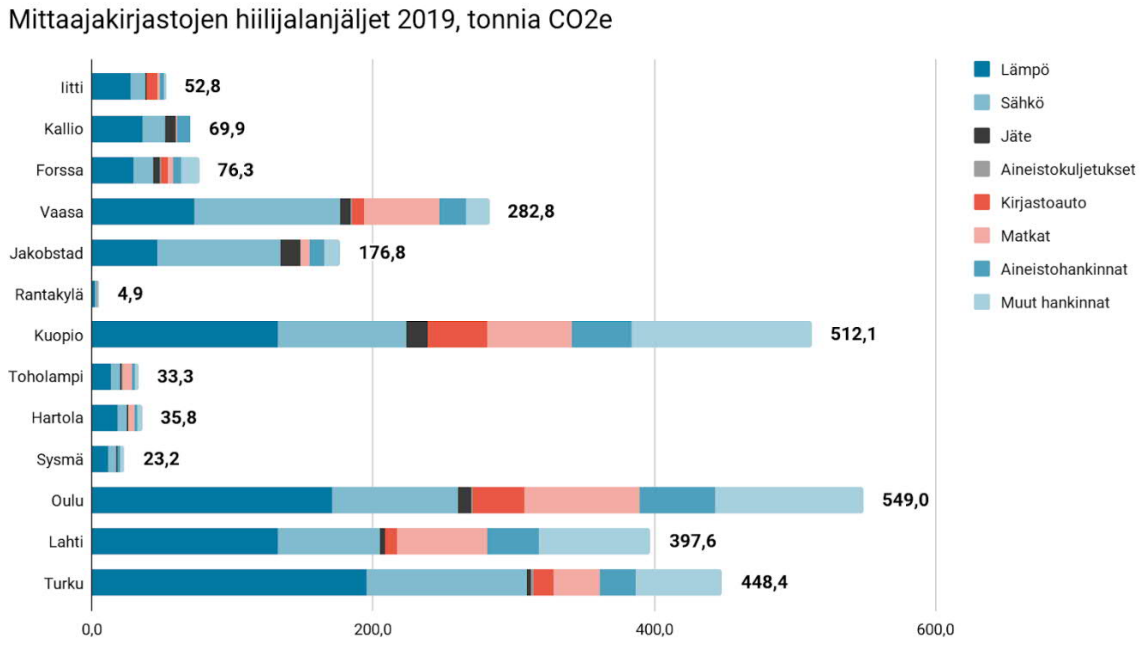
Leila Sonkkanen

Carbon footprint and its measurement in public libraries

The carbon footprint study of libraries was the first national data collection and measurement process in which emission data from libraries were studied together with experts. The aim was to identify the key factors involved in calculating the carbon footprint of libraries and to develop a tool that would allow public libraries to assess their environmental impact more widely. Thus, the carbon footprint study is the first comprehensive review of the climate emissions of Finnish libraries, and its results can be used as a reference for future calculations. The pilot will also make it possible to monitor national statistics and developments. In addition to the actual calculations,

the aim was also to obtain as comprehensive a picture as possible of the challenges of data collection.

Thirteen libraries of different sizes from different parts of Finland participated in the carbon measurements in autumn 2020. The work consisted of data collection and four workshops, but consultations were also organised to support the work. During the process, it was observed that the quality of the materials and the availability of information varied quite a lot between libraries. However, the project invested in the data collection process, as carbon footprint data is the most important work step in the process, which guarantees the reliability of the calculation. The consumption data for 2019 was used as a basis to calculate the carbon footprint of each library. The measurement was carried out by the city, town or municipal libraries of Forssa, Hartola, Iitti, Kallio (Helsinki), Kuopio, Lahti , Oulu, Jakobstad, Rantakylä (Joensuu), Sysmä, Toholampi, Turku and Vaasa. The carbon measurement results of these libraries are presented in Figure 8.



Mitta ajakirjastojen hiilijalanjäljet 2019, tonnia CO2e	Carbon footprints of the measuring libraries 2019, tCO2e
Iitti	Iitti
Kallio	Kallio
Forssa	Forssa
Vaasa	Vaasa
Jakobstad	Jakobstad
Rantakylä	Rantakylä
Kuopio	Kuopio
Toholampi	Toholampi

Hartola	Hartola
Sysmä	Sysmä
Oulu	Oulu
Lahti	Lahti
Turku	Turku
Lämpö	Heating
Sähkö	Electricity
Jäte	Waste
Aineistokuljetukset	Material transports
Kirjastoauto	Mobile library
Matkat	Trips
Aineistohankinnat	Material purchases
Muut hankinnat	Other purchases

Figure 8: Results of carbon footprint measurements

Limitation and phases of the carbon footprint measurement for libraries, and results for libraries of different sizes

The limitation of carbon calculation in libraries was done in such a way as to give as realistic a picture as possible of the library sector and its climate impacts. The uncertainties included in the calculation were minimised by limiting the emissions to be considered to cover all library activities, but some limitations were also made to simplify the calculations. For example, only paper and e-books were considered from the material.

Carbon footprints are commonly calculated using data based on actual consumption, i.e. primary data. If this data is not available or if the reliability of the data is uncertain, secondary or computational data is used. The primary data used in the carbon calculation of libraries was the data collected by the participating libraries on their own activities, and the secondary data was statistical data on the library sector. Other assessment criteria used in the limitation included the ability of libraries to influence emissions, the identifiability of data sources and the reproducibility of data collection without high resource requirements. Based on these criteria, the carbon footprint measurements were limited to the energy consumption of the premises, waste, material transports, business trips as well as material and other purchases. The results were scaled to the national level using the statistical data from public libraries, which gave national averages. This limitation and phases of the carbon calculations is presented in Figure 9.

Kirjastojen laskennan rajaus ja vaiheistus	Limitation and phases of the calculation of libraries
1. Mittaajakirjastojen tiedonkeruu ja laskenta	1. Data collection and calculation of participating libraries
Tilat	Premises
Tilojen lämmitys	Heating of premises
Sähkönkulutus	Electricity consumption
Jätemäärät lajeittain	Amount of waste by type
Tilakoot ym tilastotiedot	Size of premises and other statistics
Logistiikka	Logistics
Aineistokuljetukset	Material transports
Kirjastoauto	Mobile library
Muut kuljetukset	Other transport
Henkilöstön matkat	Staff travel
Toiminta	Activities
Aineistohankinnat	Material purchases
Muut hankinnat	Other purchases
Tietoliikenne ja järjestelmät	Telecommunications and systems
Mittaajakirjastojen hiilijalanjäljet 13 kpl	Participating libraries' carbon footprints 13 pcs
2. Kansallisen tason laskenta	2. Calculation at national level
Yleisten kirjastojen tilastot 2019	Statistics of public libraries 2019
Lainamäärät, kuntakoot, tapahtumien määrä, tilojen käyttö, tilojen neliömäärät yms	Loan amounts, municipalities, number of events, use of premises, square metres of premises, etc.
Yleisten kirjastojen kansallisen tason ilmastovaikutusten arvio*	Estimated climate impact of public libraries at the national level*
3. Indikaattorit	3. Indicators
Indikaattorit ja kädenjälki	Indicators and handprint
Kansalliset keskiarvot ja indikaattorit kirjastojen toiminnan kehittämisen tueksi	National averages and indicators to support improvement of library operations
* eli yleisten kirjastojen hiilijalanjälki - on suositeltavaa käyttää "arvio"-ilmaisua, sillä mukana on niin paljon tilastollisia muuttujia.	* i.e. the carbon footprint of public libraries – it is recommended to use the expression 'estimated' as there are so many statistical variables involved.

Figure 9: Limitation and phases of the carbon calculation of libraries

In connection with the processing of the results, the libraries participating in the measurements were divided into three size classes based on the size of the premises. In all size classes, emissions from premises (heating and electricity) accounted for more than half of the emissions. If emissions from waste are added to the calculation, that makes nearly 60% of the total emissions of the library. However, there are some discernible differences that can be explained, for example, by the number of devices offered to customers. This emphasises the shares of heating and electricity for smaller libraries, while larger libraries had more purchases (material and other). The average emissions are presented in Figure 10.

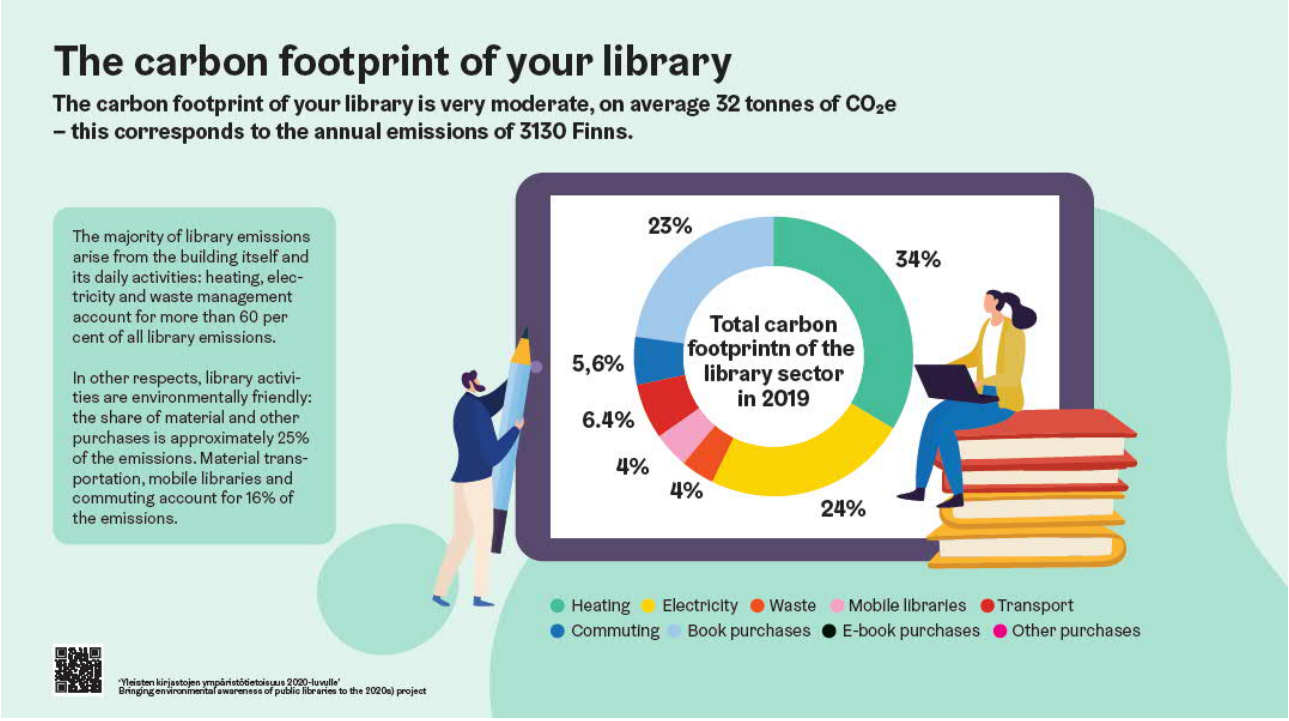


Figure 10: The carbon footprint of your library in 2019

It is noteworthy that about two-thirds of the emissions from libraries are from the energy consumption of the premises, which consists of either heating and electricity consumption. From the point of view of reducing emissions in the library sector, this poses a challenge to municipalities, towns and cities, since the property owner typically makes energy purchasing decisions.

The emissions of the whole sector were calculated on the basis of the data received from the participating libraries in proportion to the statistics of public libraries. The calculation included activities that are common to all libraries and for which the consumption and statistical data were available in a usable form. However, it is worth considering the result as a measure of scale; for

example, the effects of the location of libraries or the floating of materials were not taken into account. With this calculation method, the carbon footprint of public libraries is 32,000 tCO2e, which corresponds to the annual emissions of approximately 3,100 average Finns.

In the carbon footprint of public libraries, it is significant how low the emissions from library *operations* are in the end. Material purchases account for only 5.6% of emissions, and material transport, or logistics, accounts for 6.4%. This is only 12% of total library emissions. It is also significant that e-book purchases are not shown in Figure 10 at all due to their non-existent emissions. Emissions from book purchases are 300 times higher than from e-books. This is partly due to the fact that the volume of book purchases is still several times that of e-books. However, in terms of the carbon footprint, e-books are by far the most environmentally conscious choice, as in addition to being low in emissions, they are also highly circulating material – the circulation of e-books was more than four times higher than the average lending cycle of books. This is explained by the emphasis on new and popular e-books, and by their automatic recovery. In addition, in the case of e-books, the sources of emissions associated with transport and storage are completely eliminated.

There are a few things to consider when analysing these figures. The factor used in the calculations, 8 grams of CO2e/e-book, is based on the assumption that each library e-book is borrowed ten times. Emissions from the e-reader are not included in the factor, as most people currently use a smartphone or tablet to read e-books. However, the climate impact of the e-reader is quite different if only an e-book reading device is used. On the other hand, it should also be noted that e-books burden the data transmission infrastructure. The climate impacts of this infrastructure are significant on a global scale, but it is practically impossible to reliably calculate the proportion needed to read an e-book. The required data is not available.

The carbon footprint calculation of libraries, combined with the statistical data of libraries, also produced interesting indicators and key figures for monitoring the climate impact of libraries. The following climate indicators could be derived from the carbon measurements of the library sector:

- Book loan carbon footprint 0.46 kg CO2e
- Physical visit carbon footprint 0.60 kg CO2e

- E-book loan carbon footprint 0.008 kg CO2e (not including device and data transfer)
- Library card carbon handprint 24.5 kg CO2e per card.

Carbon handprint of the use of public libraries

Measuring the carbon footprint is a well-established means of identifying the negative climate impacts of operations. A carbon handprint is, in a way, the opposite phenomenon: it measures and describes the positive effects of a service or product. However, the handprint is not just the mirror image of the footprint, but its creation requires actions from the customer or user. The carbon handprint thus informs the customer of the benefits arising from the use of the service or product. The carbon handprint of reading can be determined by comparing, for example, the positive climate impact of a paper book purchased for the library with the climate emissions of a purchased paper book.

The starting point is therefore the carbon footprint of the book, which consists mainly of the emissions from the electricity and heat production used in its production and the greenhouse gas emissions generated during transport. According to VTT, the average emissions during the production of a book are 1.2 kg CO2e, which corresponds to approximately 7.3 kilometres of driving by car. This figure can be used as a rough reference value. The emissions of reading on this basis are visually represented in Figure 11:

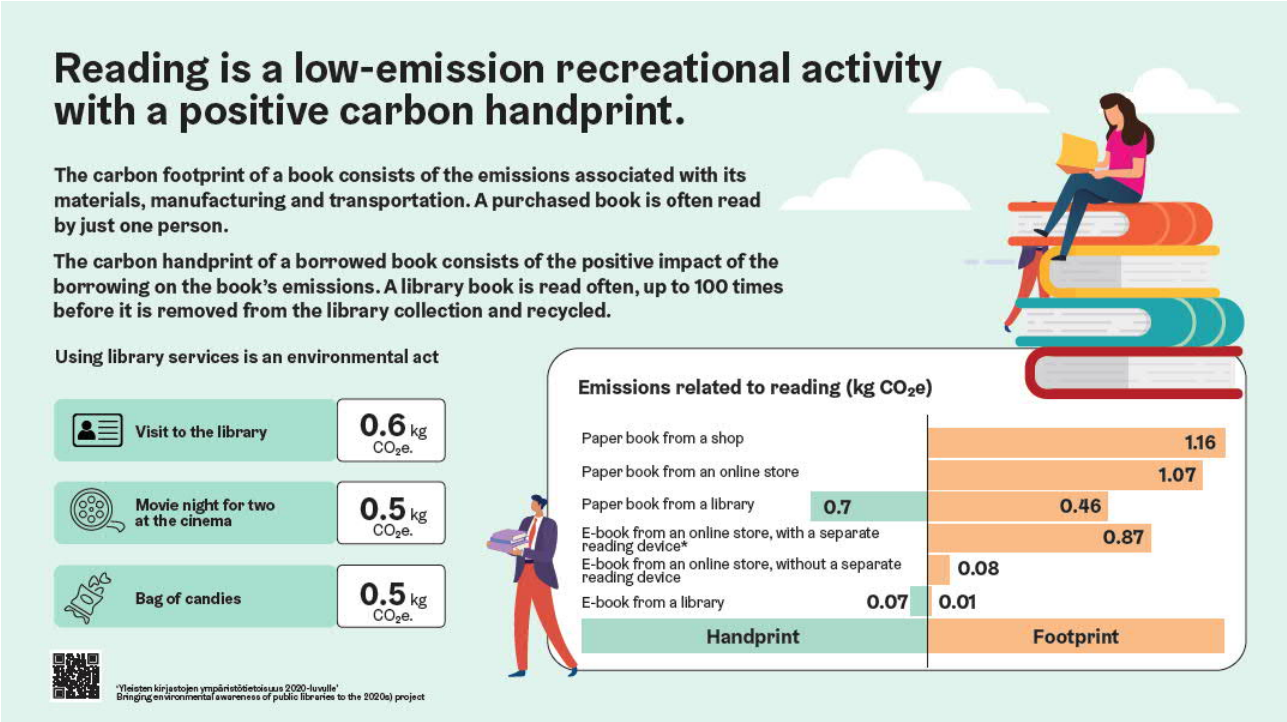


Figure 11: Emissions from reading

In this calculation, the carbon footprint of the book has been estimated to be slightly smaller (1.16 kg CO2e), but the principle is clear: the climate emissions of a paper book borrowed from the library are slightly less than half of the emissions of a book purchased for one's own bookshelf – assuming the book is read only once. This calculation is based on the fact that library books have several readers, so that the book's emissions can be divided between several readers.

The carbon handprint of a borrowed book is calculated as the difference in climate emissions between a purchased book and a borrowed book, which is approximately 0.7 kg CO2e. Thus, the choice to borrow a book from the library instead of buying it produces this much less climate emissions. The carbon handprint of a library card can also be calculated using this formula. When the carbon handprint of one loan is multiplied by the total number of book loans of libraries and divided by the total number of borrowers, the result is 24.5 kg CO2e per library card. In 2019, the carbon handprint of a Finnish library card was 24.5 kg CO2e. The carbon handprint of a library card is visualised in Figure 12:

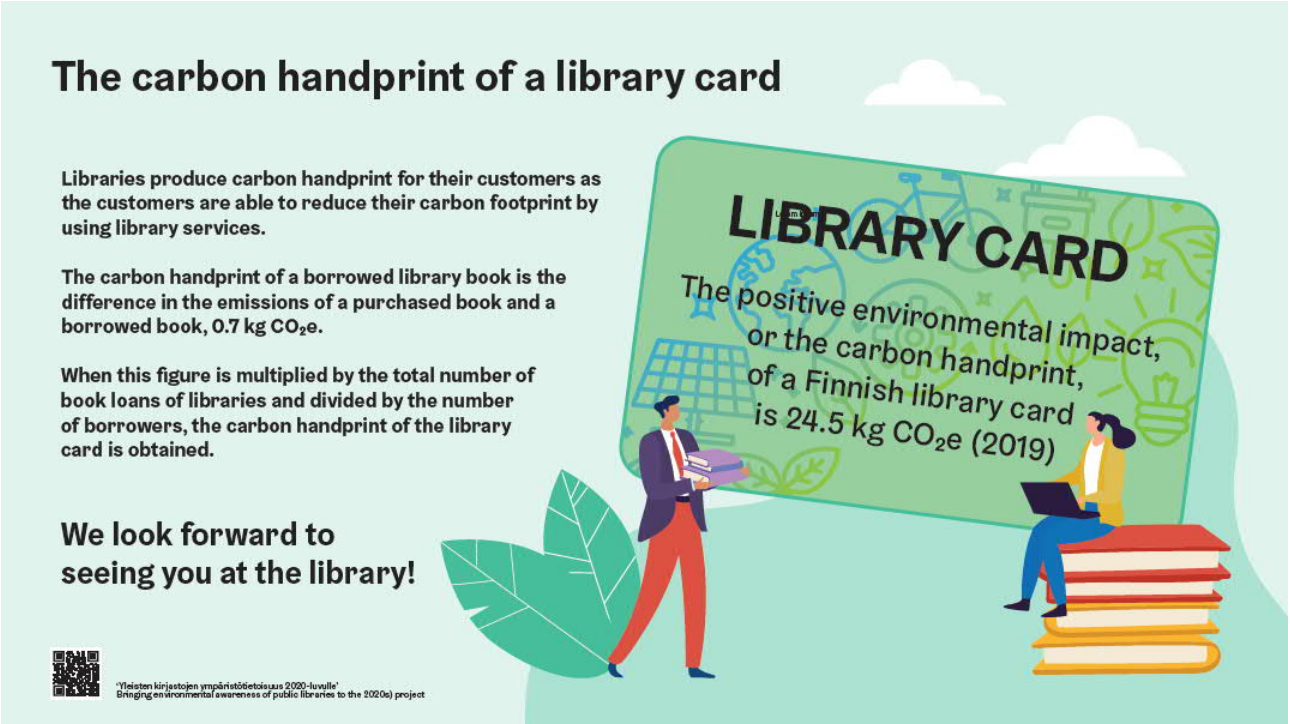


Figure 12: The carbon handprint of a library card

These are well-established ways to calculate the carbon footprint and handprint of books and reading. It should be noted, however, that these are not absolute figures, because carbon footprints and handprints are influenced by many variable factors that we can influence ourselves in some cases, but which are often difficult to obtain information about. The calculation of the carbon footprint and handprint of a book is always about averages.

One additional factor influencing the carbon handprint of books and reading is the number of times the book is read. Again, the problem is that we do not know how often a purchased book goes unread. The project sought to find out with a small survey how often people read their books. The survey received 128 responses and found that 50% of the respondents read the books they bought at a bookstore once and 30% more than once. In addition, about 20% circulate the book after, either in the family or social network. This means that approximately half of purchased books are read more than once, reducing their carbon footprint. The carbon footprint of a purchased book is further reduced when book circulation is added to this: more than 50% of the respondents circulated purchased books in some way, usually either by lending or giving them to friends. With regard to the carbon handprint of library use and reading, this means that one cannot increase one's carbon handprint as much as we calculated in the project by borrowing

books from the library. On the other hand, the carbon footprint of books borrowed from the library is quite reliable in this respect, as almost 70% of borrowers read the books they borrow from the library, but only 4% read them more than once.

However, the carbon handprint of library use is not limited to the positive climate impacts of circulated books and materials. Visiting the library also has other potentially positive climate impacts. The first thing that comes to mind is, of course, emissions from visits to the library. These emissions are most affected by the mode of transport and the distance travelled. The location of libraries in places where people do a lot of business, such as shopping centres, reduces the need for separate trips and thus also emissions. There is also an advantage in locations near public transport. According to the project's estimate, taking trips to visit the library into account in the carbon footprint of the library would increase the carbon footprint by 30% or even 60% according to the highest multiplier. This is a very rough estimate, but it shows that the customer can significantly increase the carbon handprint of their library use by arriving at the library on foot or by bike.
The effects of trips could also be added to the carbon footprint of reading (above). In this case, the idea is that the book does not come to the reader by itself, but has to be picked up from a bookstore or library. However, it is not entirely clear whether taking into account the trips would have a greater climate impact on the person who buys or borrows his or her book. The customer of the bookstore goes to the bookstore and from there to the home, but the customer of the library makes this two-way trip twice: when borrowing and when returning the book. However, this scenario does not take into account the *circular economy* nature of the library: the customer picks up the book from the library and returns it a few weeks later, at which point the book starts to circulate to the new borrower and the original customer borrows more books. In addition, the customer may also do much more in the library than just return and borrow. This circular economy nature of libraries should be modelled more accurately. This was not yet achieved in the framework of this project.

Regarding the circulation of data, libraries can also increase their carbon handprint by improving logistics. The transport of material between libraries requires transport, although in the light of carbon footprint measurements, the importance of library transport was surprisingly small. For

their part, customers can influence their carbon handprint by reducing unnecessary transport by picking up their reservations. The carbon handprint of library use is visualised in Figure 13:

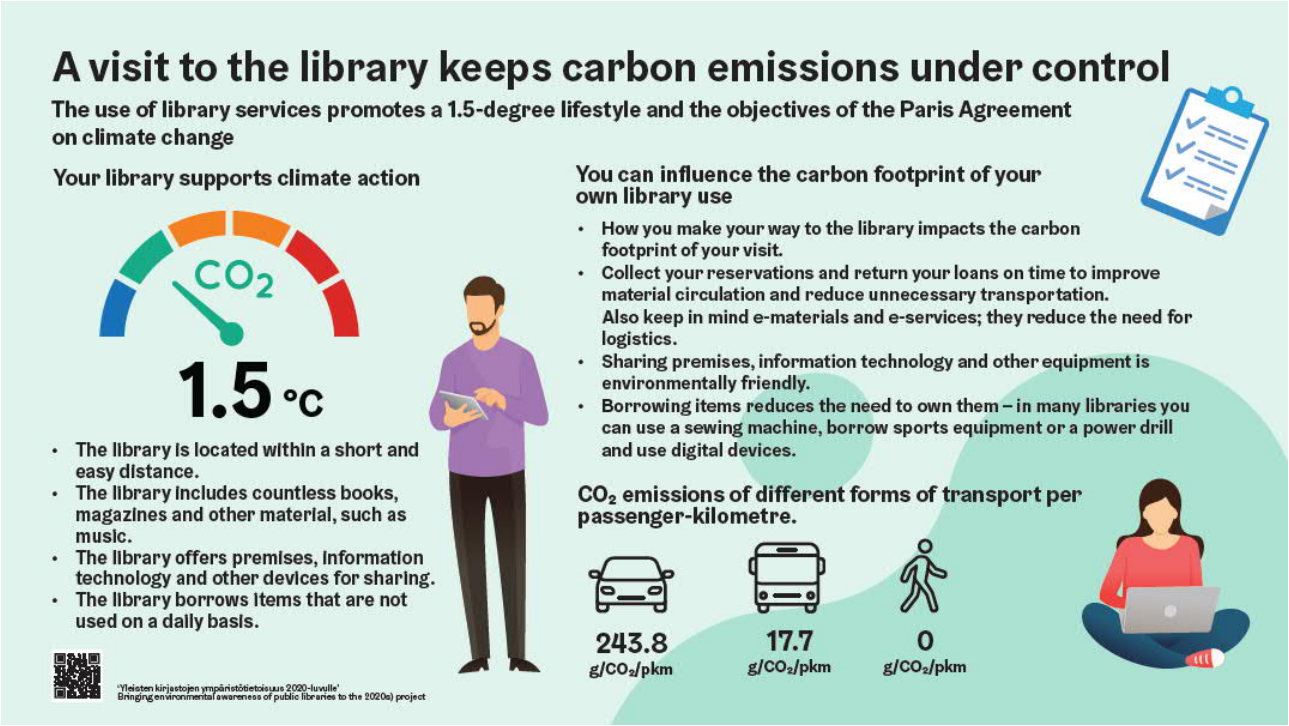


Figure 13: A visit to the library keeps carbon emissions under control

In addition to the circular economy and the climate emissions of reading, the carbon handprint of library use can also be approached from the perspective of the *sharing economy*. Public libraries not only circulate many kinds of materials ranging from paper books and e-materials to sports equipment and other goods, but also provide shared facilities. Public libraries offer a wide range of shared living and working spaces and events for their customers. In addition, almost every library offers opportunities to use a computer, print, scan and copy. Many libraries also offer workshops. Using these services, customers make a choice that reduce their carbon footprint.

Agenda 2030 from the point of view of public libraries

Harri Sahavirta

Agenda 2030 and the Sustainable Development Goals

The library world has recognised the importance of the United Nations Sustainable Development Goals (SDGs) and the fact that they can be taken as a starting point when considering the ecologically, socially and economically sustainable operations of libraries. However, the SDGs are very general in nature, though they approach sustainability from many angles. In this way, they balance the debate on sustainable development, which, incidentally, is prone to focusing solely on carbon neutrality or emission reduction, but does not offer a ready-made action plan. In addition, the SDGs are interlinked and show how sustainable development depends on factors that are interdependent. In this way, the SDGs can be used to deepen the environmental awareness of libraries.

The *Bringing environmental awareness of public libraries to the 2020s* project worked on sustainable development goals through workshops. The aim was to choose suitable SDGs for public libraries. Six SDGs that can be considered relevant for all Finnish public libraries were selected. Next, the SDGs were concretised and adapted to the framework of public libraries, for example by having *good education* include promoting reading for all ages and supporting lifelong learning. Practical work must then consider how to support reading and lifelong learning in practice – and what the local conditions are. Figure 14 presents the selected SDGs.

Figure 14. The main SDGs of the library

The work did not go further, but it can generally be said that the SDGs have broadened libraries' view of sustainable development and how libraries could contribute to it in a variety of ways. At the same time, however, the understanding of the SDGs has remained somewhat superficial. The project's work remained purely qualitative, and the project did not develop, for example, indicators to enable the impact of the libraries' work on the SDGs to be assessed more accurately. Libraries' understanding of the interrelationship between key SDGs and how different SDGs could support each other should be deepened using the tools of systematic change.

Conclusions and guidelines

Harri Sahavirta & Leila Sonkkanen

Bringing environmental awareness of public libraries to the 2020s, which focused on the environmental awareness of libraries, was the largest research, education and development project in the library sector in Finland so far. During the project, new information was obtained through a survey and carbon footprint measurements of libraries, and the carbon handprint of libraries and how libraries could meet SDGs were outlined. In addition, three webinars on

environmental issues were organised and Green Library pages and social media groups were established.
In this way, the project achieved its objectives, which were to map the development of public libraries' environmental awareness, to gather together the best practices of libraries, to develop new environmental measures suitable for library work, and to organise training nationwide on the basis of these. In line with the objectives set, an environment network of public libraries was also created as a platform for discussion, peer support and sharing of best practices. The project has made the image of the libraries' environmental awareness and work clearer and more diverse.

The project started with the calculation of the carbon footprint of libraries – this was the first carbon footprint calculation carried out jointly by an expert and the participating libraries. Carbon footprint measurements showed that the climate emissions of public libraries are quite moderate and consist largely of emissions from buildings and, for example, electricity consumption. The calculations also included some surprises, such as the modest share of material transports of libraries in the carbon footprint. Another significant result was the definition of indicators and a calculation formula that libraries can use to estimate or calculate their climate emissions in the future. However, the carbon measurements for this project were not completed: the carbon footprint of the participating libraries in 2019 was calculated, but follow-up was left to the libraries or to future projects. Future projects should look at the measures that the carbon measurements have led to.
The survey of libraries showed how significant a leap the environmental work of public libraries has taken since 2012. This has been influenced by the change in opinion in society: countries – but also cities, towns and municipalities – are committed to different environmental and climate agreements and targets. This has meant that libraries no longer do environmental work alone, but in cooperation with other actors in the municipality: everyone now has shared environmental objectives. At the same time, citizens – library customers – have also become active, for example, in opposing climate change. The results of the survey showed this in the fact that more and more public libraries have an environmental programme or environmental objectives. However, not all libraries have been able to find shared objectives with other actors in the municipality, and the main obstacle to the environmental work of libraries is still seen to be old buildings and outdated technology, the replacement of which is decided elsewhere.

Another significant change in the environmental work of libraries is that sustainable development no longer only means the energy consumption of library buildings or saving paper and recycling waste. Alongside the principles of green buildings and the Green Office, new concepts have emerged, such as the carbon handprint and the circular and sharing economy. Libraries' environmental work should focus on what kind of library services we produce and their environmental impacts. With the SDGs, the social aspect has also become more important.

The survey revealed that libraries perceive technological development, demographic change and the economy as the main drivers of change, while environmental factors lag behind. However, according to the *value survey*, libraries value the social aspect of sustainable development, such as equality, the most, although environmental factors are valued more than technical and economic values. At the same time, it turned out that libraries are not fully aware of the circular and sharing economy: although libraries have traditionally circulated their materials and offer shared facilities and equipment to customers, the circular and sharing economy is not seen as a fundamental pillar of the library's environmental work. Similarly, work on the SDGs should be continued and deepened. In addition, the carbon handprint of libraries still requires modelling and – after modelling – customer information and involvement.

The value survey also touched on the question of whether public libraries should curate their collections – or provide environmental information and disinformation on an equal footing. The accessibility and reliability of the materials, as well as non-discrimination and democratic values, are at the forefront of the values of library staff. Therefore, the reliability of information is not perceived to incompatible with non-discrimination or democracy. On this basis, it can be thought that libraries are expected to provide *reliable* information *for everyone*. However, the situation is somewhat complicated by the fact that all respondents also considered freedom of expression to be important values, and 70% of the respondents also included tolerance among the most important values.

In general, it can therefore be stated that the *Bringing environmental awareness of public libraries to the 2020s* project has achieved its objectives and has also attracted interest both at home and internationally. However, the environmental work of public libraries is not over; there is still much room for improvement.