eGreen

GREEN DIGITAL TRANSITION IN THE EU

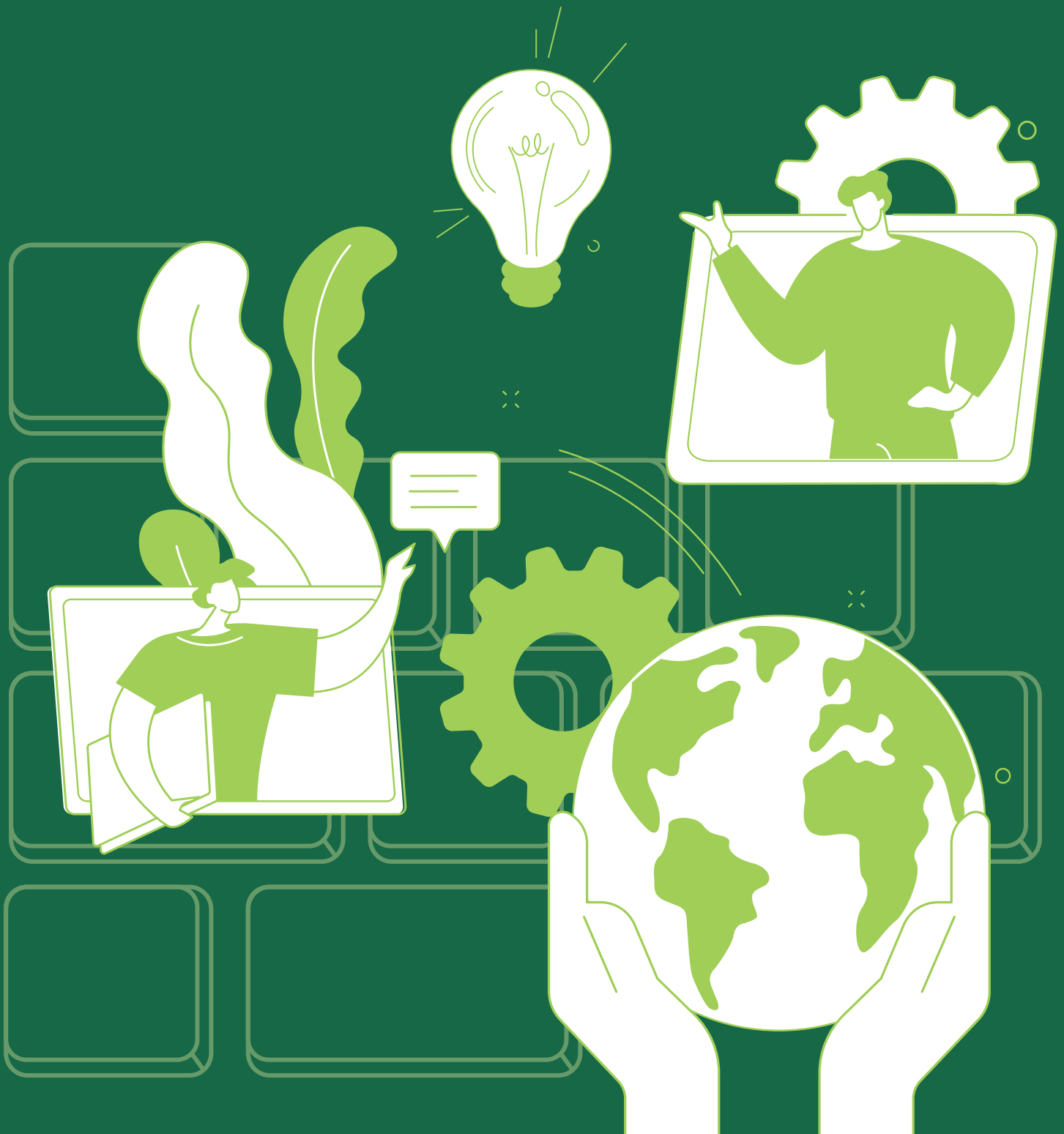# TABLE OF CONTENTS

GLOSSARY

Cookies	A cookie is a small text file that a website stores on a user's device (computer, smartphone, etc.) when they visit the site. Cookies are used to track user activity on the website, remember user preferences, and personalise the user's experience.
Device	In the context of technology, a device refers to any electronic or digital tool used to perform a specific function. Examples of devices include smartphones, laptops, tablets, and smartwatches. Devices can be both hardware (physical components such as a screen or keyboard) and software (programs or apps that run on the device).
Digital transition	The process of integrating digital technologies into various aspects of society, including business, government, education, and healthcare. This can involve the adoption of new digital tools and platforms, as well as the transformation of existing systems and processes.
Digitalisation	The process of converting analog information or processes into digital formats or systems. This can involve the use of digital technologies to capture, store, and analyse data, as well as the automation of various tasks and processes.
E-waste	This term refers to electronic waste, which includes any electronic device that is discarded, donated, or no longer used. Examples of eWaste include smartphones, computers, and televisions. eWaste can be harmful to the environment if not disposed of properly, as electronic devices contain toxic materials such as lead and mercury.
Green transition	The shift towards a more sustainable and environmentally friendly economy and society. It involves reducing carbon emissions, increasing the use of renewable energy sources, and promoting sustainable practices in all areas of life.
Information and Communication Technologies (ICT)	Refers to a broad range of technologies used to manage and communicate information, including computers, software, telecommunications equipment, and the internet.

01

INTRODUCTION

01 INTRODUCTION
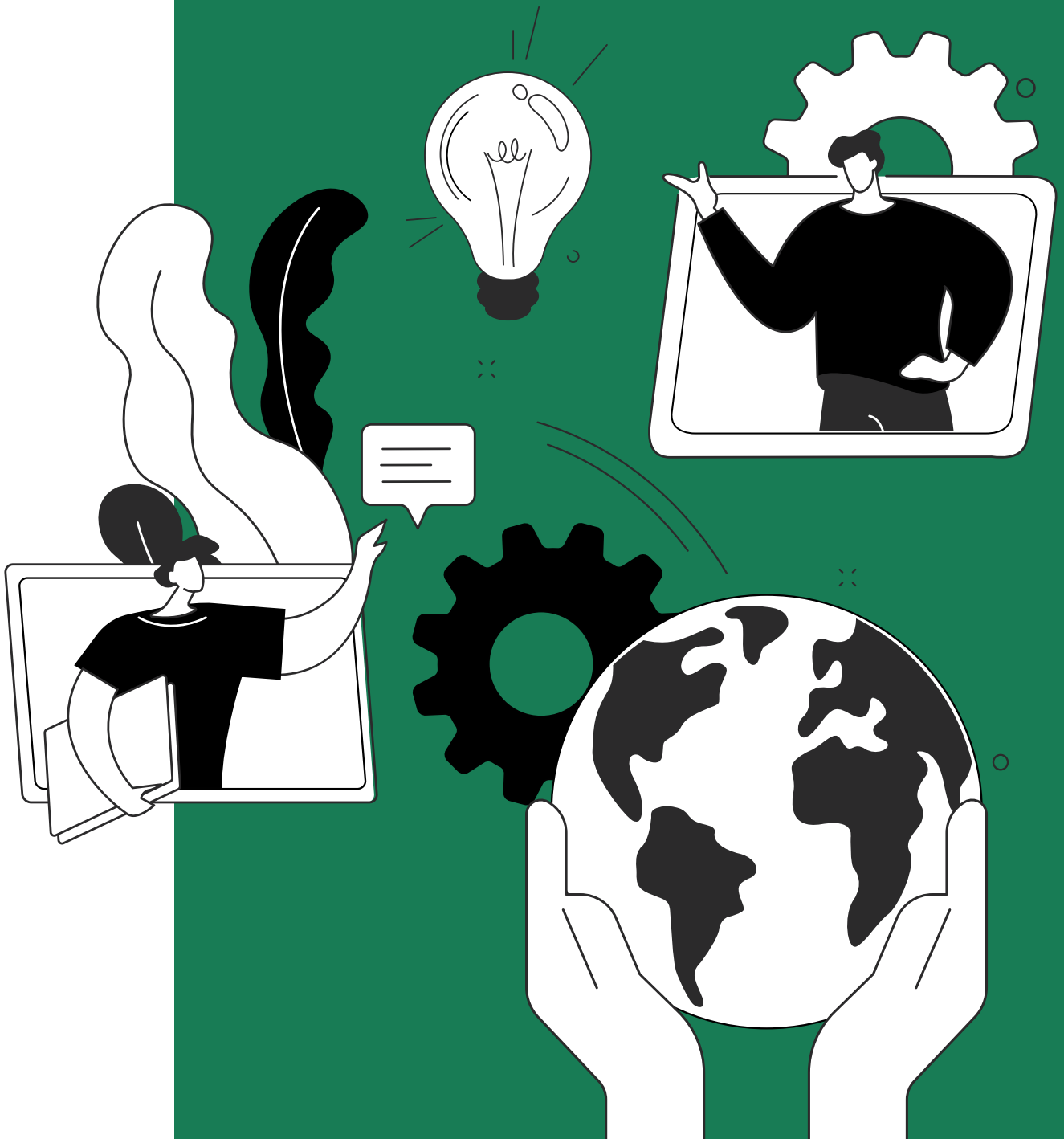
Context

Ever since the outbreak of the COVID-19 pandemic, professionals from the VET sector sought to adapt by digitalising their practices to resume regular activities and provide inclusive and innovative solutions to VET learners.
In this context, many VET organisations developed hybrid or virtual international mobility opportunities and included them in their daily practice to enable VET learners to benefit from an international experience no matter the context.
Digital transformation is a crucial challenge of our societies and such profound transformation has to be inclusive as reiterated by the European Commission in a statement on "Digital inclusion", this transformation can only be pursued only if "everybody can contribute to and benefit from the digital world".

In the meantime, the environmental impact of digital technology has also been assessed by the European Commission which claimed in a statement "Green digital sector" that "we need to ensure that digital technologies do not consume more energy than they save".
Moreover, on Digital Day 2021, the European Union issued "A Green and Digital Transformation of the EU" statement which was supported by the European Green Digital Coalition Members. They notably declared their support in favour of such an initiative and emphasised the importance of investing "in the development and deployment of green digital solutions" and "engaging with relevant organisations to develop standardised, credible and comparable assessment methodologies for the net impact of green digital solutions on the environment".

To that extent, ADICE and the Project Partners (PPs) want to demonstrate that providing innovative and inclusive digital solutions to all is a challenge that has to be compatible with the fight against climate change and that a green inclusive digital transformation is achievable.
The objective of this cross-country study will be to benefit from a complementary European strategic partnership to develop and disseminate short-term, mid-term and long-term solutions so that VET professionals can actively engage in a successful green digital transformation.

Purpose of the study

The cross-country study forms part of a set of four pedagogical tools developed within the eGreen project with the general objective to contribute to the reinforcement of capacities of VET professionals and VET learners to engage them in the inclusive & green digital transformation of the EU. Its specific objective is to identify, analyse and valorise the best existing practices in the VET sector to engage VET professionals (and beyond) toward an inclusive green digital transformation.

Digitalisation is a process that has already been initiated and which has to be fulfilled in the VET sector to ensure the relevance and innovative capacities of VET professionals and organisations.
The development of hybrid and virtual opportunities, along with the increasing use of digital technologies in the VET sector has the potential to fuel innovation, and inclusion and facilitate access to knowledge, training and international opportunities. Nonetheless, the extent to which VET professionals are aware of the environmental impact of such digitalisation remains to be assessed.
It is reasonable to expect that some individuals or organisations have already implemented and integrated practices to reduce their digital impact on the environment, yet the level of integration and commitment to implement such practices at the EU level remains to be evaluated.

To that end, the cross-country study aims to recollect the insights of VET professionals across the EU to identify the sector's current state of digital adoption and potential barriers to adopting green practices and technologies.

By understanding their digital behaviour and preferences, the project team can develop targeted tools and training programs to facilitate the uptake of green digital technologies in the VET sector.

This initiative will explore the daily behaviours of VET professionals from four European countries: France, Italy, Ireland, and Estonia and identify the best existing practices to initiate and contribute to the minimisation of the environmental impact of digital practices in the VET sector through the adoption of simple recommendations.

Through this initiative, project partners expect the study to demonstrate that:

• From a general perspective, the adoption of green digital practices in the VET sector remains limited and there lies a substantial need to raise awareness of the green digital transition

• There is a necessity to valorise the best existing practice of European VET organisations and professionals to facilitate further integration of impactful measures across the EU

• VET professionals can engage the VET sector toward the green digital transition

• The adoption and implementation on a large scale of effective measures and practices will require support from policymakers, VET organisations and stakeholders

By designing this pedagogical tool, the project partners wish to provide a detailed recollection of current behaviours in the VET sector which can be addressed. The European scope of the tool has been designed to enable the inclusion of a variety of contexts and practices across the EU and is expected to facilitate its adoption within multiple cultures, contexts and countries. The intention behind the initiative is to carry out a multidimensional approach to identify potential patterns and contrasts across countries and from a global perspective.

Within the eGreen project, a cross-country study has been developed related to the kit for VET professionals. The overall objective of both tools will be to develop the knowledge and skills on the environmental impact of digital practice of VET professionals to influence them to implement comprehensive measures in support of inclusive green digital transformation in all their daily activities.

The cross-country study is designed to provide concrete, detailed and relatable information to VET professionals to facilitate the future integration of the recommendations provided at the end of the document.

Through the highlighting of innovative and impactful practices across the EU, the consortium intends to provide VET professionals with alternatives that can be considered and implemented smoothly.

Ultimately, along with the kit for VET professionals, the project partners expect to provide the target group with relevant and relatable pedagogical tools to provide a strong basis to enable VET professionals to raise awareness on this issue and facilitate the adoption of standardised practices across the EU members states and contribute to the EU's policy objectives regarding green digital transition.

02

ASSESSING THE IMPACT OF DIGITAL PRACTICE ON THE ENVIRONMENT

Sustainable development, carbon footprints and Environmental Management Systems

The eGreen project has been designed based on incentives from the European Union and particularly the European Commission which has recently pointed out the intricate relation between the digital and green transition. The environmental impact of digitalisation has been acknowledged by the EU Commission on several occasions and is now included in the priorities for the future of the digital in the EU:

An open, democratic and sustainable society
The EU's digital strategy will
• use technology to help Europe become climate-neutral by 2050
• reduce the digital sector's carbon emissions[1]

In the past decade, the effective impact of digital practice on the environment has been assessed by numerous academic researchers, NGOs, think tanks, policymakers, etc. Rather than focusing on the negative and positive impact of ICT on our societies and falling into the traps of guilting individuals, researchers suggest moving beyond such dichotomy and approaching the objective of study rather as a complex, interdependent and systemic issue[2].

To provide a comprehensive and adapted response, the project partners have built their pedagogical methodology and tools upon three main concepts. First, the eGreen project and hence, the cross-country study, are initiatives that aim to contribute to the sustainable development of our societies. As defined by the United Nations in the "Sustainable Development Goals", sustainable development refers to the ability of a system to be able to balance economic development, social change and environmental protection. According to this definition, the idea of sustainability particularly aims at creating

societies where the needs of the present are met without preventing future generations from being able to meet their own.

To be able to evaluate and assess the actual impact of digital practice on the environment, the study also relies on the widely known concept of the ecological footprint as defined by the Ecological footprint network. This concept aims at measuring the amount of biological product required to produce any service or good to support our societies' activities. As the development of digital practices and digital devices particularly impacts the environment through the emission of carbon dioxide, the eGreen project will also employ the concept of carbon footprint which refers to the measurement of carbon emissions that have an impact on climate change and are correlated to human activities[3].

Finally, to ensure that the environmental considerations can coordinate with the daily professional practice of the VET sector, project partners will ground their approach with the theory of Environmental Management Systems (EMS). According to the United States Environmental Protection Agency, this concept aims at developing a set of processes and procedures to enable organisations to reduce their environmental impact while retaining their operational efficiency. Based on the results of the study, the best practice given by respondents and the kit developed for VET professionals, the eGreen project intends to offer an adaptable EMS for VET organisations and VET professionals that they can implement in their daily practice.

Through the three concepts defined above, the project partners expect that the study will effectively assess the daily professional and personal behaviours of VET professionals and contribute to engaging the VET sector toward the green and digital transition.

[1] Extract from "Shaping Europe's digital future",
    European Union, February 2020.
[2] (Berkhout & Hertin, 2004)
[3] (Wiedmann, T. and Minx, J., 2008)

Topics addressed

Based on this proposed methodology, project partners conducted research to frame the object of study and develop a questionnaire adapted to the daily work of VET professionals working in a variety of fields, and in any European country.

To ensure that the study remains designed to provide relatable recommendations and best practices, project partners have identified eight subjects related to the daily practice of VET professionals.
The following set framework of topics has been assessed collectively based on the experience of each project partner and on thorough research to evaluate the relevancy of discussing each selected subject.

SENDING AND RECEIVING EMAILS
Berners-Leen, founder of the web (WWW), estimates in his book "How Bad Are Bananas?: The Carbon Footprint of Everything" (2020), that globally emails could account for as much as 150m tonnes of CO2e in 2019, or about 0.3% of the world's carbon footprint.
That is based on around half of all emails sent being spam and the remainder being reasonably useful messages that took the sender 3 minutes to write and the reader about 1 minute to read.
On that basis, average email usage is equivalent to driving a small petrol car for around 128 miles.

DATA STORAGE
According to the International Energy Agency analysis, data centres and data transmission networks, each account for 1-1.5% of global electricity use, and this figure is expected to increase as more businesses move their operations to the cloud.
While cloud computing can be more energy-efficient than traditional computing methods, the sheer scale of data storage and processing required by cloud services means that they still have a significant environmental impact.
A 2019 study by Greenpeace found that the energy consumption of large cloud computing companies is growing at a rate of 14% per year, and the sector as a whole is responsible for 2% of global greenhouse gas emissions.
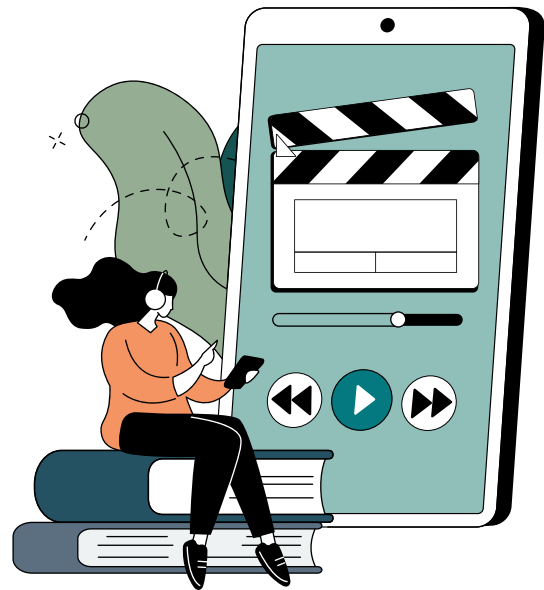
VIDEO STREAMING
According to a 2019 report from The Shift Project, a French think tank, online video (including both streaming and downloading) accounted for approximately 1% of global greenhouse gas emissions in 2018, or around 300 million tonnes of CO2 equivalent.
The report found that the majority of emissions associated with video streaming came from the energy used to power data centres and networks and that this energy consumption is expected to continue to rise as more people access streaming services and as the quality of video content improves.

THE IMPACT OF SOCIAL MEDIA

Social media platforms generate significant carbon emissions through their energy consumption. The ICT sector, which includes social media platforms, accounts for around 2.5% of global greenhouse gas emissions, with this figure expected to rise to 4% by 2025.

Facebook alone reported that its data centres used 5.8 million megawatt-hours of energy in 2020, equivalent to the energy use of over 500,000 homes in the US.

USING DEVICES & DIGITAL TOOLS

The use of devices and digital tools, such as smartphones, laptops, and gaming consoles, contribute to global greenhouse gas emissions through their production, use, and disposal.

In 2020, the ICT sector was responsible for approximately 1.5 billion metric tons of CO_2 equivalent emissions, which is equivalent to the emissions of the entire aviation industry. According to the Carbon Trust, using a smartphone for one hour a day for a year emits approximately 44 kg of CO_2 equivalent, which is roughly equivalent to driving a car for 161 km.

CYBER-SECURITY

The rise of digital technologies and devices has led to an increase in cyber security measures, which also contribute to greenhouse gas emissions.

In 2019, cyber security measures such as firewalls, encryption, and intrusion detection systems accounted for approximately 1.7% of global CO_2 emissions, with this number projected to rise to 3.5% by 2025. This is largely due to the energy consumption of the data centres that house and power these measures, as well as the energy required to manufacture and dispose of the devices and hardware used for cyber security.

PLATFORMS & APPS & BROWSER

Global data centre energy consumption was estimated to be 205 TWh in 2018, which represents around 1% of global electricity consumption.

DOCUMENTS / GUIDES / BROCHURES

Printing documents, guides, and brochures also contribute to greenhouse gas emissions. The paper industry is a significant contributor to deforestation, which leads to carbon emissions, and the energy consumption required to produce paper products also adds to their carbon footprint.

The pulp and paper sector was responsible for about 190 Mt of CO_2 emissions in 2021, about 2% of all emissions from industry and a historic high. It is estimated that paper production and disposal account for 4% of global greenhouse gas emissions.

03

SUPPORTING VET PROFESSIONALS AND THE VET SECTOR ON GREEN DIGITAL TRANSITION

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VET professionals: key stakeholders to facilitate green digital transition

The cross-country study is designed to focus on supporting VET (Vocational Education and Training) professionals practising in the EU. Such a target group includes a wide variety of profiles with different capacities, skills and responsibilities: teachers, trainers, educators, and other professionals who are essentially responsible for delivering vocational education and training programs in different settings, including training centres, schools, universities, etc.

VET professionals represent one of the main driving forces to engage the VET sector toward the green digital transition. They are key stakeholders in the education system and remain in the best position to become agents promoting sustainable practices and minimising the environmental impact of digital practices. Through their daily work, VET professionals have the capacity to shape the next generation of professionals and can have a direct impact on their awareness. From e-commerce and handicraft to IT and tourism, VET professionals are invested in a wide variety of sectors. As such, they play a critical role in the development of the European economy and society and can have a profound impact on how these sectors will apprehend green and digital transition.

By developing tools particularly adapted to their professional context, the project partners also expect that the study and the kit for VET professionals can also bring change in their daily practice by reducing their impact and changing behaviour through their influence on colleagues, organisations and any stakeholder in the VET sector.

VET professionals are a crucial and functional target group for the "eGreen" project, as their expertise, engagement, and influence are essential to have a systemic impact on the commitment of the VET sector toward a green digital transition.

A questionnaire made for VET professionals

The survey for VET professionals was designed and translated to be sent out to VET professionals in France, Italy, Ireland, and Estonia. The data was collected using an online questionnaire which was sent out randomly to VET institutions and professionals. The survey was also promoted through relevant networks to maximise participation. The online form was designed collectively by all the project partners and was constructed to recollect quantitative and qualitative data.

The first section was a dedicated set of questions to recollect demographic information: age, type of institution, and country of practice.

The second section was designed in correlation with the eight topics identified by the project partners. For each topic, three to four questions were designed to collect information on their current practices, preferences, and challenges related to digital technologies and their green transformation.

In the third section, the form also enabled VET professionals to share any best practices they have implemented or are aware of regarding green digital transformation.
This additional question allowed participants to share their experiences and insights with the project partners to recollect relevant best practices.

Finally, participants were asked to suggest any additional topics or areas of interest they would be interested to discover in a future training course.

This feedback was collected to ensure that the pedagogical tools developed for the eGreen project meet the needs and expectations of VET professionals.

The survey was designed to be comprehensive yet concise, focusing on collecting actionable insights that could inform the development of targeted tools and programs. The questions were designed to be straightforward, with a mix of closed-ended and open-ended questions to allow for quantitative and qualitative analysis.

Questions recollecting quantitative data were analysed using descriptive statistics, including percentages describing the frequency of habits or shares of the respondents. As for the answers to the questions recollecting qualitative data, they were analysed by categorising the answers per themes, patterns and trends. Each response was always analysed in aggregate and comparatively across all participating countries to better render the different realities of European contexts.

The study and its alleged results are not meant to hold any academic relevance. Please note that the results are not presented in the same order as initially planned in the online survey.

04

INSIGHTS FROM VET PROFESSIONALS ON GREEN DIGITAL PRACTICE

INSIGHTS FROM VET PROFESSIONALS ON GREEN DIGITAL PRACTICE

265 respondents from a variety of organisations across four European countries

WHAT TYPE OF ORGANISATION OR INSTITUTION DO YOU REPRESENT?

17%
20%
63%

- Association / NGO
- Private Institution
- Public Institution

95%
2%
2%

63%
22%
15%

60%
14%
26%

15%
50%
35%

AGE GROUP

1%
29%
35%
35%

- 18-34
- 35-49
- 50-64
- 65+

5%
43%
43%
9%

1%
44%
36%
19%

19%
21%
60%

8%
46%
46%
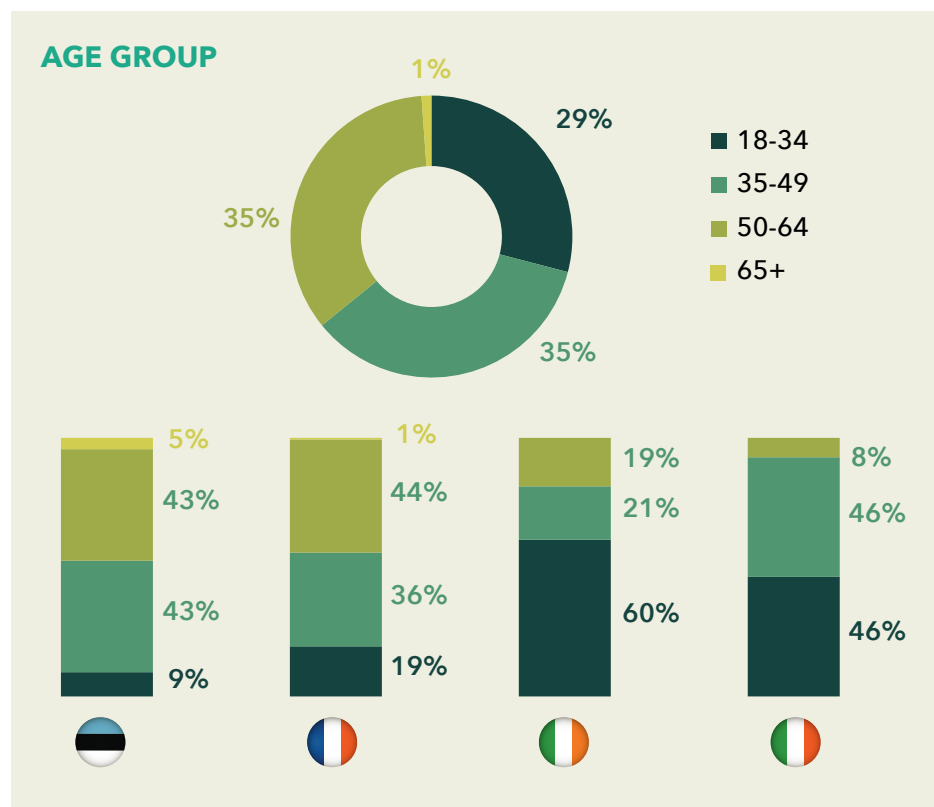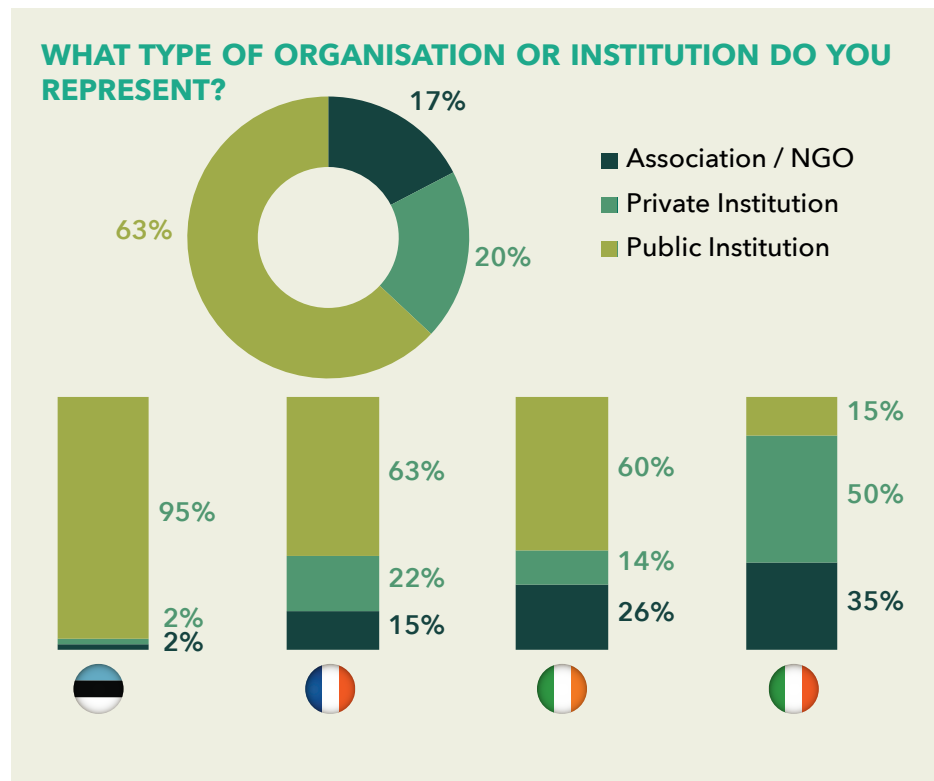
The survey conducted among VET professionals received **265 responses from four countries (Estonia, France, Ireland and Italy). The sample size provides a good representation** of the population of VET professionals, and it is possible to draw some conclusions from the data. The survey aimed to understand the attitudes and perceptions of VET professionals towards green skills, and the results showed a strong interest in the topic. One interesting finding is that there was a **slight predominance of respondents between** the ages of 35 and 49. This is a significant age group, as they are often in leadership positions and influence, and their attitudes towards green skills can significantly impact the education and training sector. Another notable result is that **most respondents belonged to the category of trainers and teachers from public institutions. This finding highlights the potential role of public institutions in promoting green skills and sustainability in the education and training sector.**

ROLE PROFESSION

■ Administrative staff ■ Principal ■ Project Manager ■ Teacher/trainer ■ Volunteer

28% 8% 18% 39% 7%

Ireland	23%	4%	42%		31%
Ireland	22%	3%	16%	28%	31%
France	32%	13%	17%	38%	
Estonia	23%	11%	64%		2%
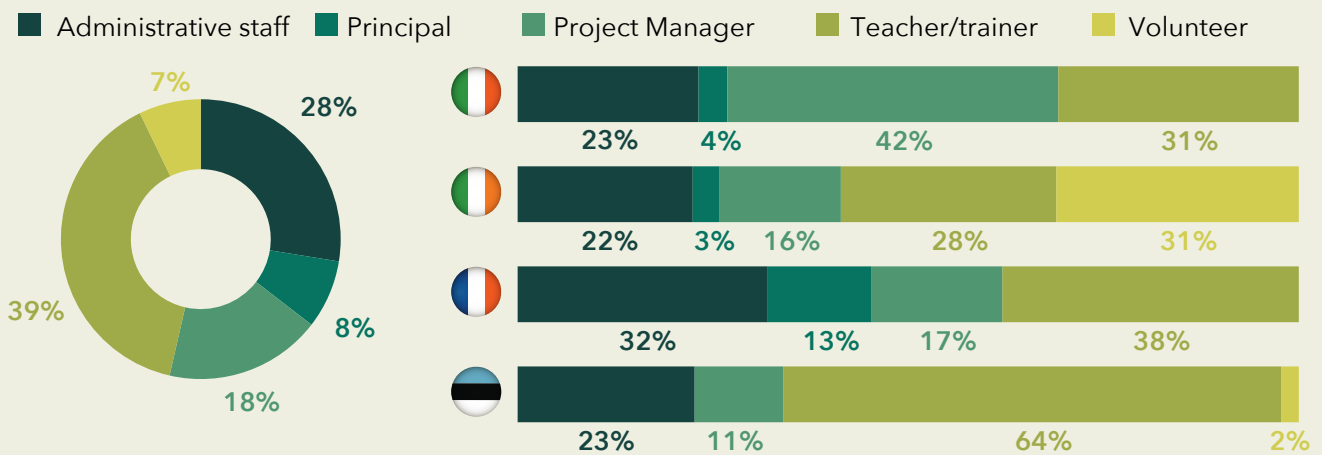
An emerging commitment to the reduction of emails environment's impact

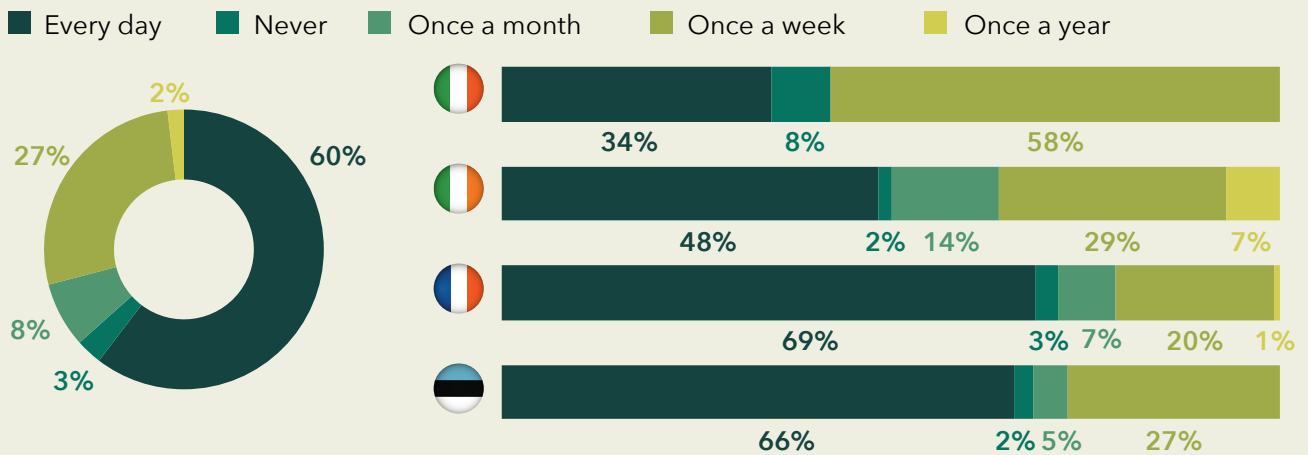**94% VET professionals clean their email inbox**

HOW OFTEN DO YOU CLEAN YOUR INBOX?
(Deleting advertisements, spam or old emails)

■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year

17% 18% 20% 6% 39%

Ireland	46%	4%	11%	35%	4%
Ireland	33%	12%	15%	21%	19%
France	42%	4%	20%	14%	20%
Estonia	36%	5%	34%	14%	11%
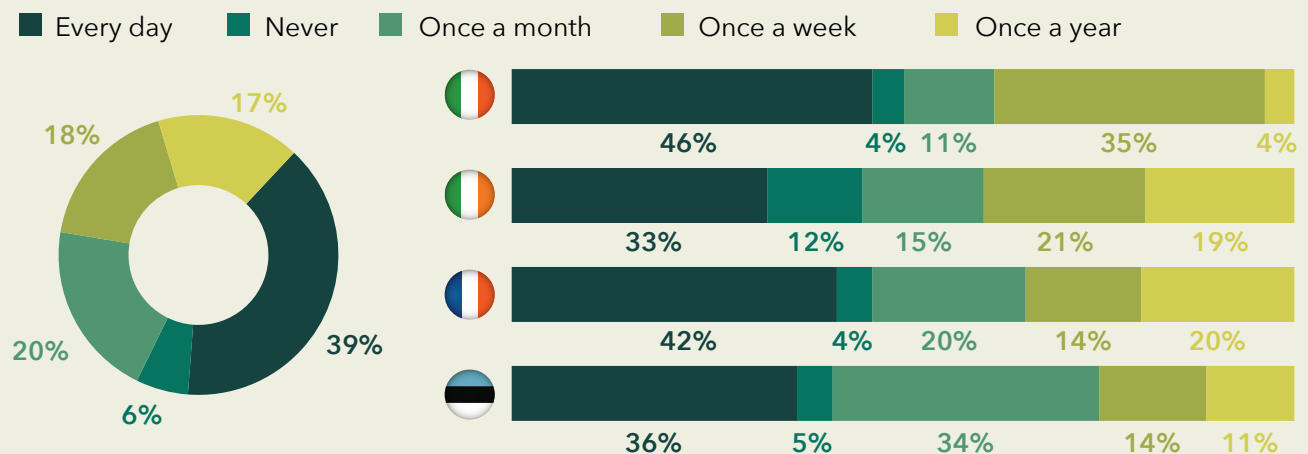
HOW OFTEN DO YOU SEND ATTACHED FILES VIA EMAIL INSTEAD OF SHARING LINKS VIA SHARED FOLDERS? (VIA DRIVE, CLOUD, ETC.)

Legend: ■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year

Donut chart:
- 60%
- 3%
- 8%
- 27%
- 2%

Bar charts by country:
- Ireland: 34% | 8% | 58%
- Ireland: 48% | 2% | 14% | 29% | 7%
- France: 69% | 3% | 7% | 20% | 1%
- Estonia: 66% | 2% | 5% | 27%

TO WHAT EXTENT DO YOU INCLUDE CONTACTS IN THE EMAIL CC TO KEEP THEM INFORMED?

Legend: ■ Always ■ Never ■ Often ■ Sometimes

Donut chart:
- 18%
- 4%
- 47%
- 31%

Bar charts by country:
- Ireland: 35% | 11% | 27% | 27%
- Ireland: 12% | 2% | 53% | 33%
- France: 21% | 4% | 54% | 21%
- Estonia: 4% | 5% | 32% | 59%
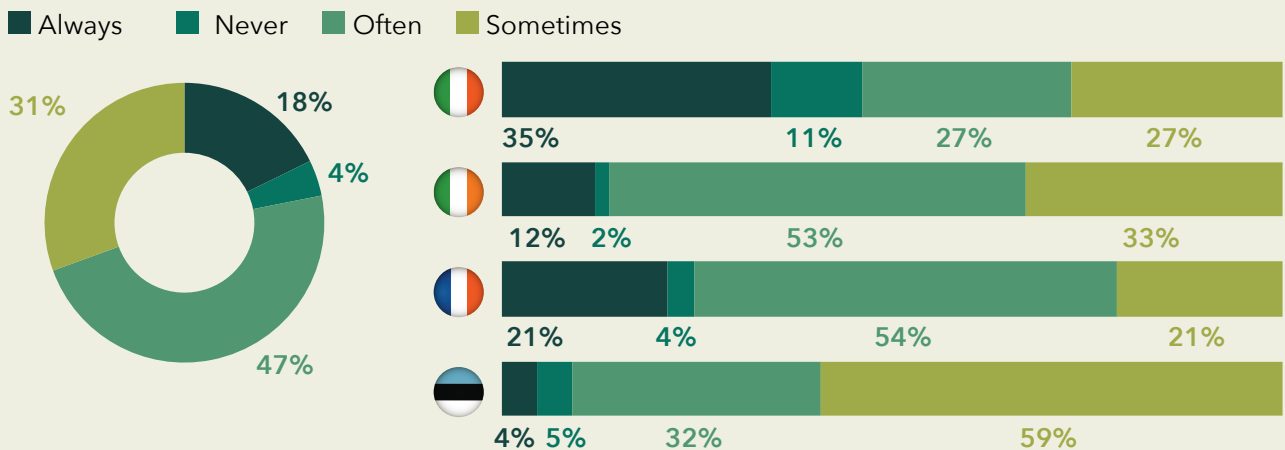
According to the survey, 39% of respondents clean their inbox daily, 20% do it once a month, 18% once a week, and 17% once a year. However, 6% state that they have never cleaned their inbox.

Additionally, 60% of the respondents send emails with attached files daily rather than sending links to shared folders. Only 3% of respondents never send attached files and prefer to use links instead. Moreover, 66% of the respondents include contacts in CC to keep them informed.

When comparing countries, from a positive perspective, we observe that 42% of the respondents from France, 36% from Esto-

nia, 33% from Ireland and 46% of respondents from Italy affirm cleaning their inboxes daily. Nevertheless, 35% of the Italian respondents clean their inboxes at least once weekly. From a negative perspective: 69% of respondents from France and 66% from Estonia sent attached files via Email instead of sharing links.

The survey results reveal that a significant portion of VET professionals do not clean their inboxes regularly. This may be due to a lack of awareness about the impact on the environment, time management issues, and difficulty in determining the relevance of emails and recipients.
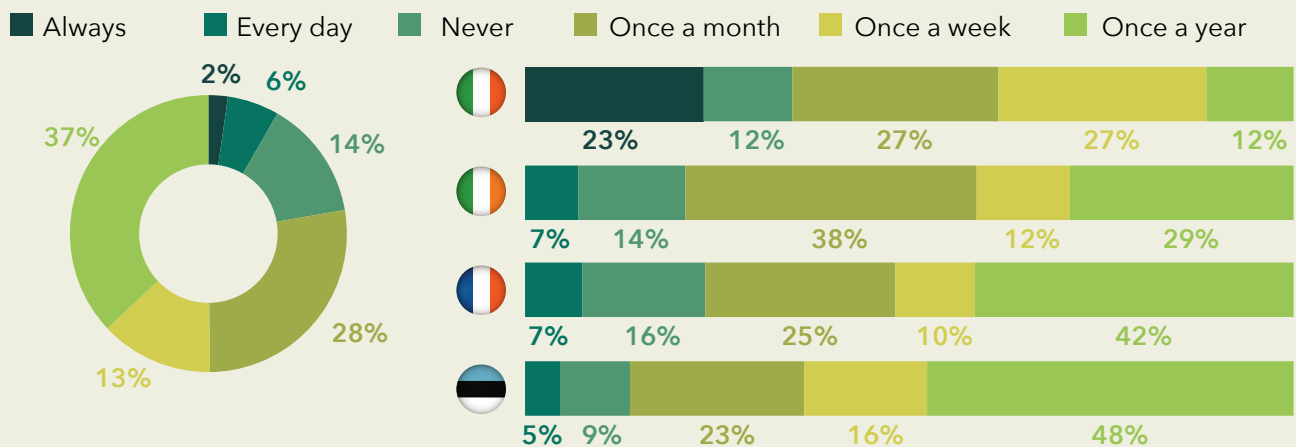
Moreover, the absence of immediate consequences associated with these practices could lead professionals to view them as insignificant. The high percentage of professionals who send attached files instead of links may be due to convenience, as it requires less effort to attach a file to an email than to upload it to a shared folder and share a link. Similarly, the practice of including contacts in CC may be due to the desire to keep all relevant parties informed, even though it can lead to cluttered inboxes for those not directly involved in the conversation. The differences in email usage patterns across countries may be attributed to cultural differences and varying levels of awareness about the environmental impact of email practices.

Online storage management, the need for process

31% participants don't check for duplicate files before downloading a document

HOW OFTEN DO YOU CLEAN YOUR DIGITAL ARCHIVE?
(by moving or deleting data)

Legend: ■ Always ■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year

Donut chart values: 2%, 6%, 14%, 28%, 13%, 37%

Country	Always	Every day	Never	Once a month	Once a week	Once a year
🇮🇪	23%		12%	27%	27%	12%
🇮🇪		7%	14%	38%	12%	29%
🇫🇷		7%	16%	25%	10%	42%
🇪🇪		5%	9%	23%	16%	48%

HOW OFTEN DO YOU CHECK FOR DUPLICATE FILES, DOWNLOADED MULTIPLE TIMES, ON YOUR DEVICE?

Legend: ■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year

Donut chart values: 12%, 25%, 31%, 19%, 14%, 12%

Country	Every day	Never	Once a month	Once a week	Once a year
🇮🇪	12%	8%	42%	31%	8%
🇮🇪	19%	36%	21%	10%	14%
🇫🇷	26%	36%	14%	10%	13%
🇪🇪	34%	18%	20%	18%	9%

HOW OFFEN DO YOU BACK UP YOUR DATA?
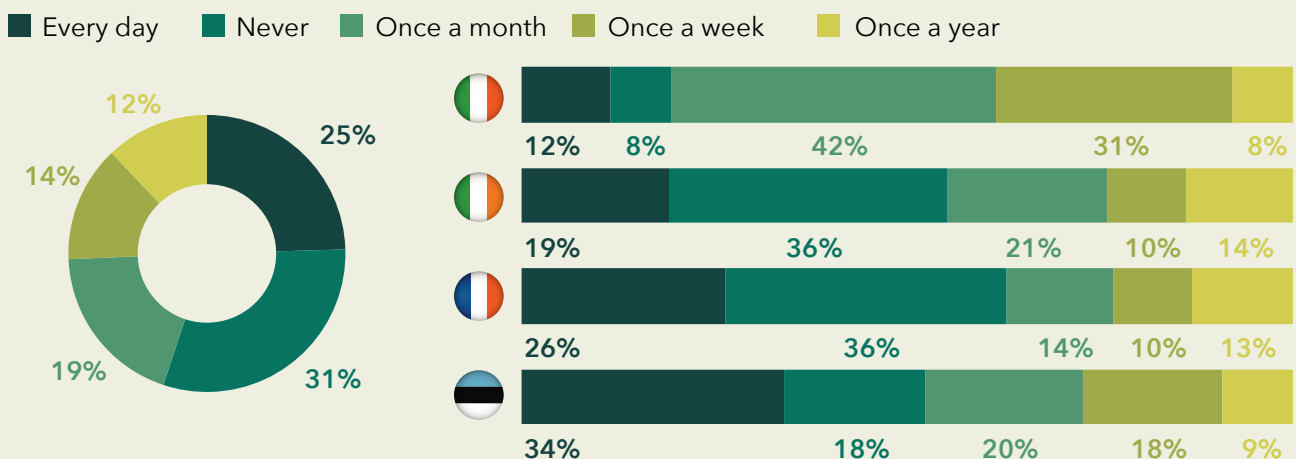
HOW OFTEN DO YOU BACK UP YOUR DATA?

Legend: ■ Always ■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year

Donut chart values: 2%, 18%, 18%, 24%, 14%, 24%

Bar chart by country:

Ireland (green): 19%, 0%, 15%, 15%, 27%, 23%

Ireland: 21%, 12%, 22%, 26%, 19%

France: 23%, 18%, 26%, 8%, 24%

Estonia: 9%, 25%, 25%, 9%, 32%
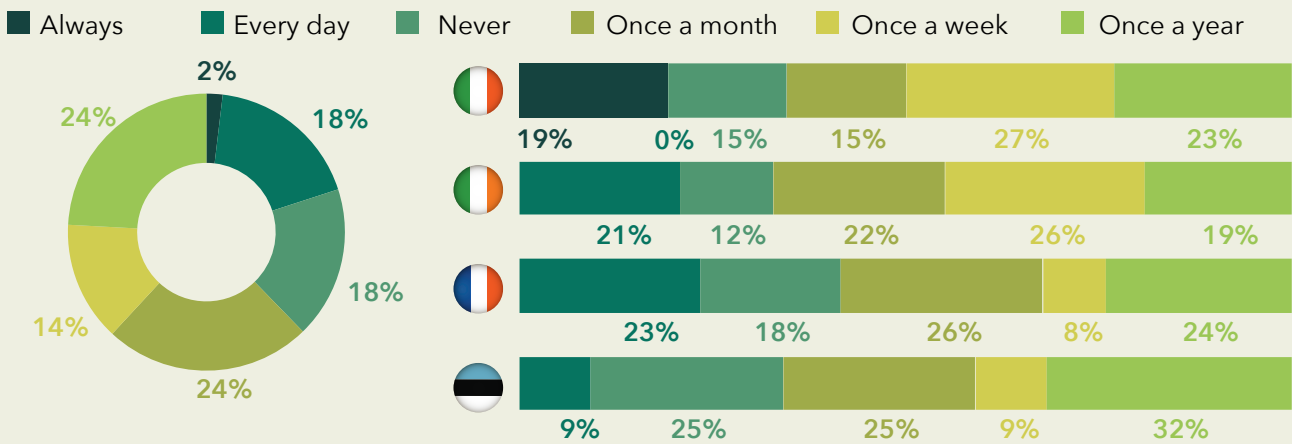
The global statistics revealed some interesting findings. It was found that 37% of respondents tend to clean their digital archives once a year, while 28% do it once a month. However, 14% of respondents have never cleaned their digital archives. The low storage costs might lead to many people never (or rarely) cleaning their devices, which could contribute to planned obsolescence. Moreover, 31% of respondents have never checked for duplicate files or downloaded them multiple times on their device, while 25% do it daily. In addition, 24% back up their digital data once every month, while 18% never do.

The survey results by country revealed that the digital storage practices of professionals vary significantly depending on the country. For instance, in Italy, 27% of respondents said they clean their digital archives once a week, while 27% do it once a month. In Ireland and France, 7% of respondents clean their digital archives daily. On the other hand, 48% of Estonia and 42% of France respondents claimed to clean their digital archives once a year. Additionally, while 36% of respondents from France and Ireland admitted to never checking for duplicate files, 42% of respondents from Italy do it once a month.

The survey results suggest that there is a significant lack of awareness and concern about digital storage practices among professionals. The fact that 14% of respondents have never cleaned their digital archives indicates that some people may not realise the importance of keeping their devices organised and decluttered. The low cost of storage might also lead to complacency and a lack of motivation to manage digital files effectively.

The differences in digital storage practices between countries could be attributed to a variety of factors, such as differences in work culture, technological infrastructure, and awareness of digital sustainability. For example, the higher frequency of digital archive cleaning reported by Italian respondents may be due to a greater emphasis on organisation and efficiency in their work culture, whereas the lower frequency reported by French and Estonian respondents could be due to a lack of awareness about the importance of decluttering digital devices.

The findings also suggest that there is a need for greater education and awareness about best practices for digital storage, including regular cleaning and organisation, duplicate file management, and data backup. This could help to improve overall digital sustainability and reduce the risk of planned obsolescence caused by overly cluttered and disorganised digital devices. Sharing good practices, such as deleting daily or weekly, could contribute to making the task of cleaning digital archives less daunting and create a habit among professionals.

Streaming services: extensive usage and significant country differences

**42%** participants claim to never use low resolution when watching videos online

HOW OFTEN DO YOU DOWNLOAD VIDEOS RATHER THAN WATCHING THEM ON STREAMING PLATFORMS?

- ■ Always when possible ■ Never ■ Often when I think about it
- ■ Sometimes because I have no choice

30% · 26% · 9% · 35%

| Country	Always when possible	Never	Often when I think about it	Sometimes because I have no choice
🇮🇪	8%	50%		42%
🇮🇪	12%	38%	9%	41%
🇫🇷	44%	26%	14%	16%
🇪🇪		48%	2%	50%
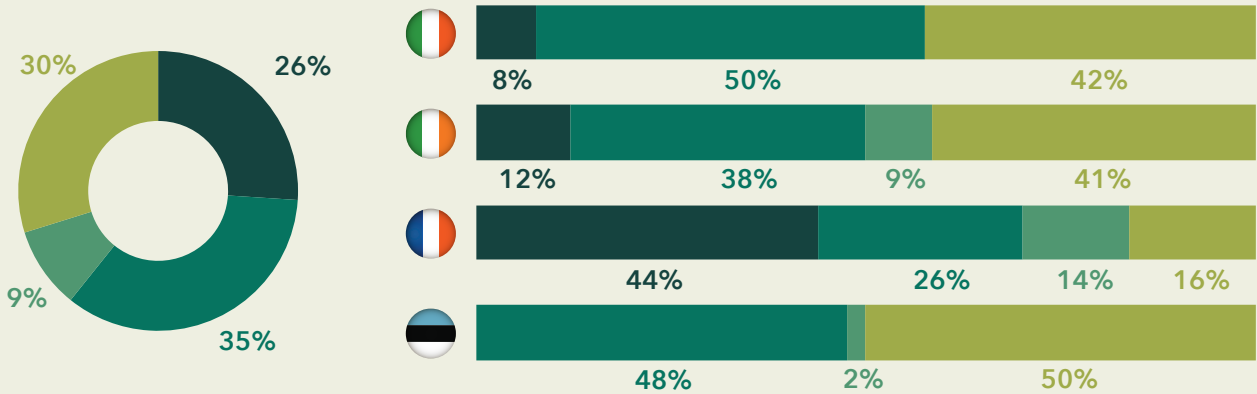
HOW OFTEN DO YOU USE OFFLINE MODE FOR STREAMING MUSIC AND VIDEO?

- ■ Always when possible ■ Never ■ Often when I think about it
- ■ Sometimes because I have no choice

28% · 14% · 14% · 44%

Country	Always when possible	Never	Often when I think about it	Sometimes because I have no choice
🇮🇪		58%	11%	31%
🇮🇪	16%	26%	29%	29%
🇫🇷	18%	47%	10%	25%
🇪🇪	7%	54%	5%	34%
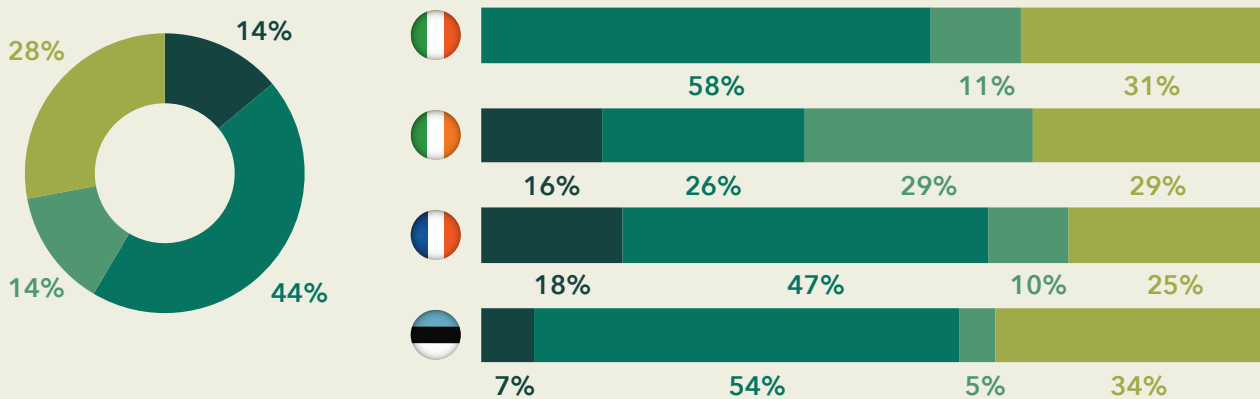
DO YOU USE LOW RESOLUTION TO WATCH VIDEOS ONLINE?
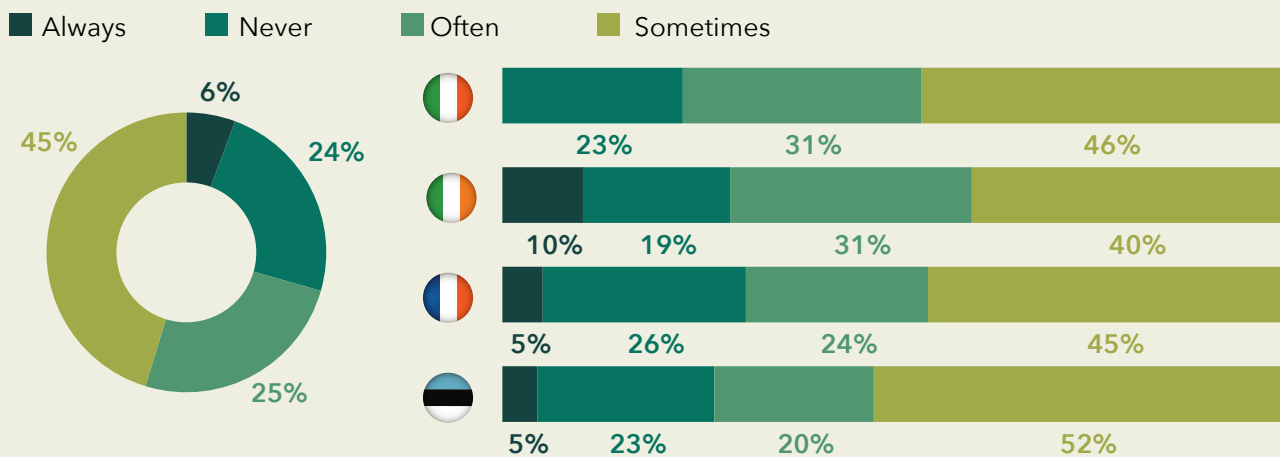
- ■ Always when possible ■ Never ■ Often when I think about it
- ■ Sometimes because I have no choice

29% · 9% · 20% · 42%

Country	Always when possible	Never	Often when I think about it	Sometimes because I have no choice
🇮🇪	4%	35%	31%	31%
🇮🇪	16%	16%	31%	38%
🇫🇷	11%	42%	19%	28%
🇪🇪		80%	2%	18%
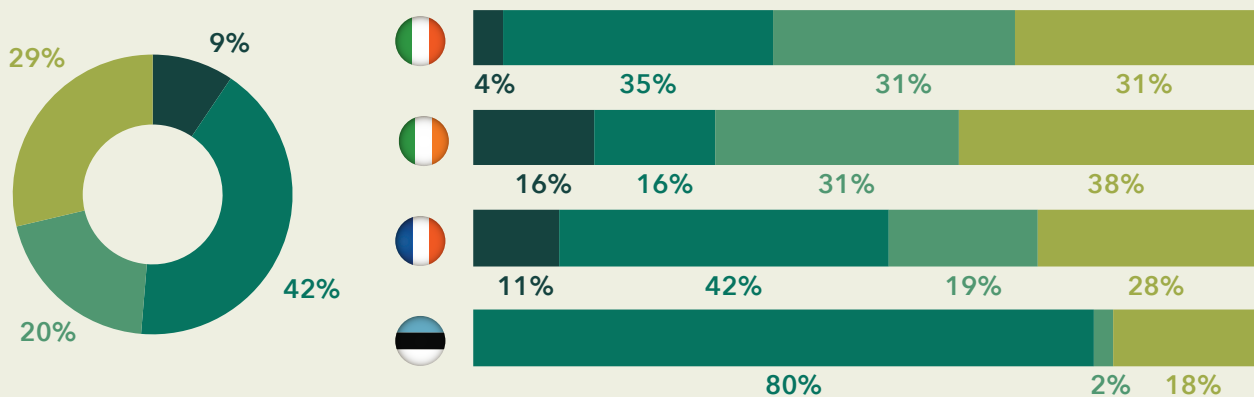
HOW OFTEN DO YOU KEEP YOUR TV OR LAPTOP OPEN, EVEN IF YOU ARE NOT WATCHING OR USING IT?

■ Always ■ Never ■ Often ■ Sometimes

Global statistics show that the majority of people use streaming services out of ease or necessity, without considering the environmental impact. 35% never download videos and watch them directly on the streaming service, while 30% do it because they have no other choice, 26% always do it when possible, and 9% do it when they remember. As for low-resolution videos, 42% of respondents from all participating countries never watch them, compared to 29% who only do it when they have no other choice, 20% when they remember, and 9% who always do it. The reasons for not watching low-resolution videos may depend on the quality and speed of the internet available to respondents, their internet package, and their awareness of the bigger digital footprint of high-resolution videos. In terms of keeping their TV or laptop open, 45% of respondents say they sometimes do it, 25% often do it, and 6% always do it, while 24% never do it. The data from each country shows a disparity, likely related to the availability of high-speed internet, access to large data storage, quality of service, and access to downloadable content.

In France, 44% of respondents constantly download videos rather than watching them on streaming, while 48% of respondents from Estonia never download videos, and 50% only do it when they have no other choice. For Italy, 50% never download videos when possible, and 42% only do it when they have no other choice.

Regarding low-resolution videos, 80% of Estonian respondents never watch them online, followed by 42% of French respon-

dents, 35% of Italian respondents, and 16% of Irish respondents. As for keeping their TV or laptop open, 10% of Irish respondents admitted to always doing it, while the percentage for Estonian and French respondents was 5%. Overall, there is no significant awareness of the importance of keeping digital tools closed if not in use, but the data from Ireland shows better awareness of this topic compared to the other countries.

Moreover, there are differences in the use of wireless mobile networks (Wi-fi) and mobile data among respondents by country. For example, Italians and Irish prefer to use Wi-fi, while Estonians and French are more used to using mobile data. It is most likely connected to the price and availability of mobile data.

There are several possible reasons behind the results of this study. Firstly, the convenience and ease of using streaming services may lead professionals to opt for this option rather than downloading videos. Additionally, some professionals may have limited access to high-speed internet or data storage, which makes streaming their only viable option.
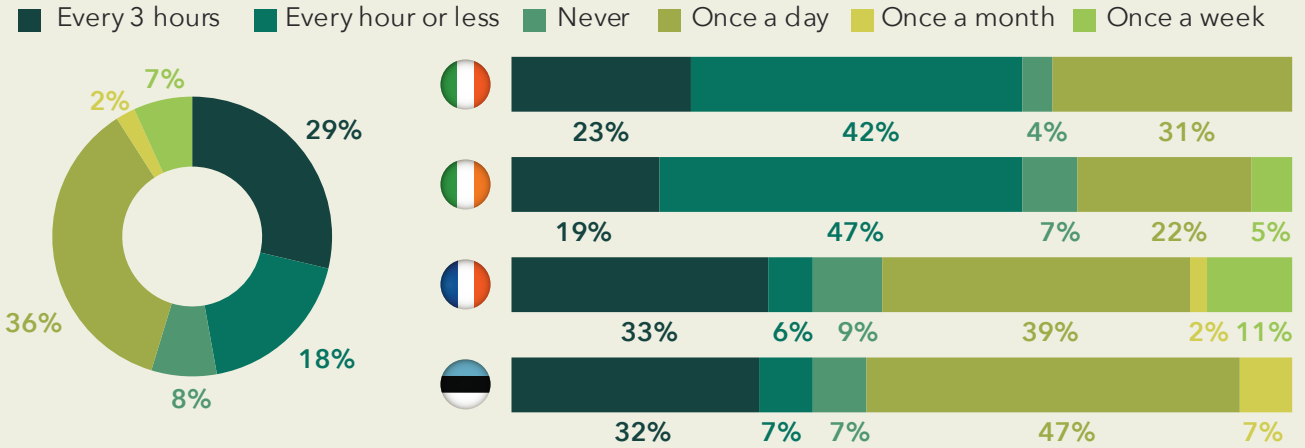
The differences in the use of low-resolution videos could be attributed to varying levels of awareness about the environmental impact of high-resolution videos.

The differences in the use of Wi-fi and mobile data among respondents in different countries may be due to factors such as the availability and cost of mobile data, as well as cultural differences in technology use.
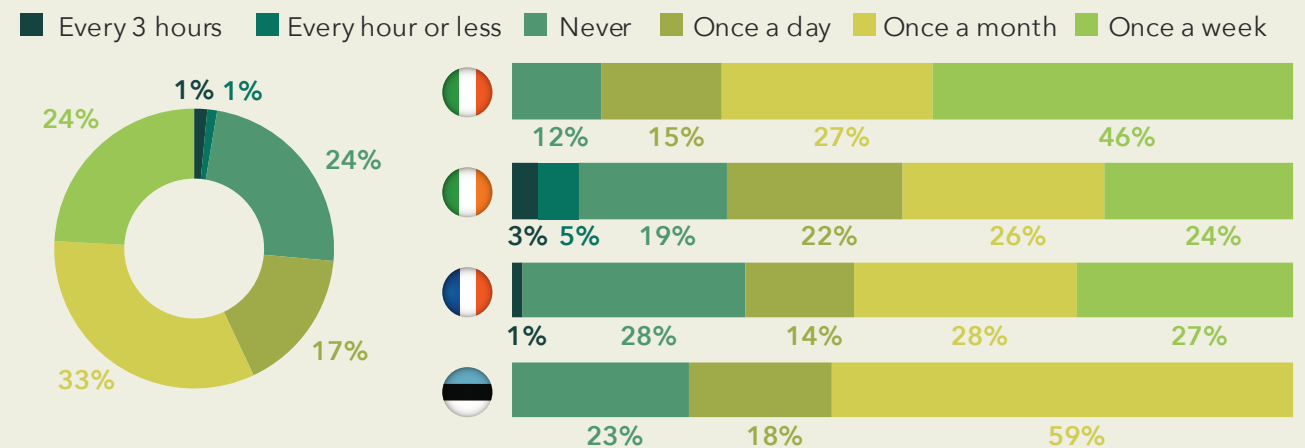
Increasing use of social medias

37% never clean their social media Inbox

HOW OFTEN DO YOU CHECK YOUR SOCIAL MEDIA?

Legend: ■ Every 3 hours ■ Every hour or less ■ Never ■ Once a day ■ Once a month ■ Once a week

Donut chart: 29%, 18%, 8%, 36%, 2%, 7%

Country	Every 3 hours	Every hour or less	Never	Once a day	Once a month	Once a week
Ireland	23%	42%	4%	31%		
Ireland	19%	47%	7%	22%		5%
France	33%	6%	9%	39%	2%	11%
Estonia	32%	7%	7%	47%	7%	

HOW OFTEN DO YOU SHARE CONTENT ON SOCIAL MEDIA?

Legend: ■ Every 3 hours ■ Every hour or less ■ Never ■ Once a day ■ Once a month ■ Once a week

Donut chart: 1%, 1%, 24%, 17%, 33%, 24%

Country	Every 3 hours	Every hour or less	Never	Once a day	Once a month	Once a week
Ireland			12%	15%	27%	46%
Ireland	3%	5%	19%	22%	26%	24%
France	1%		28%	14%	28%	27%
Estonia			23%	18%	59%	

HOW OFTEN DO YOU RECEIVE NOTIFICATIONS ON YOUR PHONE?

Legend: ■ Every 2 hours ■ Every 30 minutes or less ■ Every 4 hours ■ Every 6 hours ■ Every hour ■ Less often ■ Never ■ Once a day

Donut chart: 15%, 29%, 1%, 9%, 18%, 3%, 8%, 17%

Country	Every 2 hours	Every 30 minutes or less	Every 4 hours	Every 6 hours	Every hour	Less often	Never	Once a day
Ireland	12%	69%			15%			4%
Ireland	9%	52%	8%		21%		5%	5%
France	20%	20%	1%	9%	21%		6%	23%
Estonia	7%	7%	16%	9%	18%	23%		20%
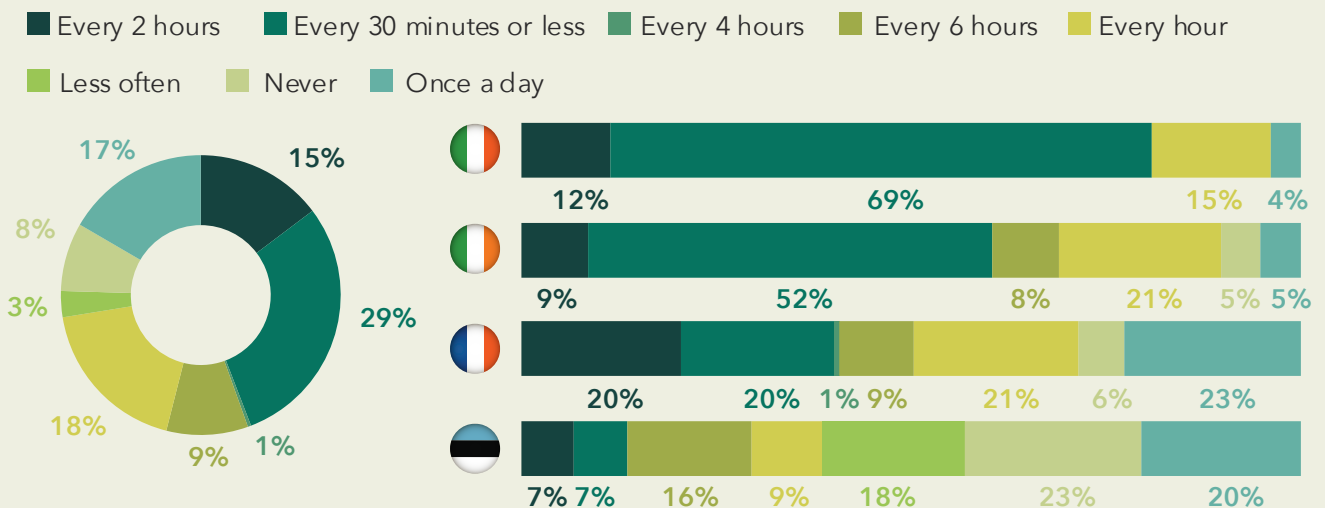
HOW OFTEN DO YOU CLEAN YOUR INBOX FROM YOUR SOCIAL MEDIA ACCOUNTS?

■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year
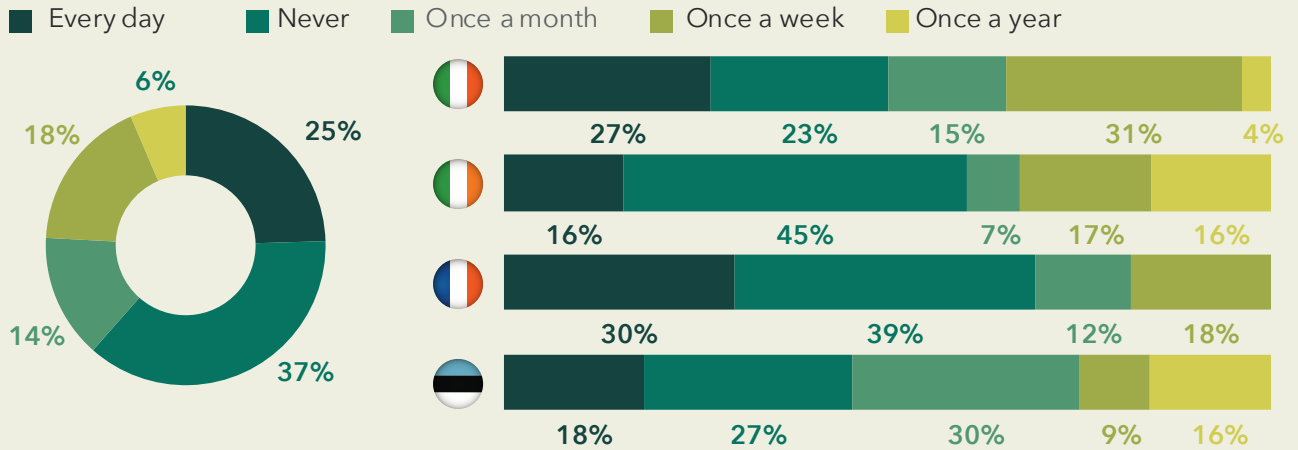
The survey revealed some alarming statistics. While social media has become an essential part of our daily lives, its impact on the environment is often overlooked.

The survey results showed that a majority of the respondents, 83%, access social media daily with little consideration for the environmental impact. This frequency of access to social media is concerning as it requires a significant amount of energy to power the servers and devices used to access social media. This energy usage contributes to the carbon footprint of social media, which is a significant environmental concern.

The survey also revealed that many respondents did not regularly clean their social media inboxes. Only 25% did it daily, 18% did it once a week, 14% did it once a month, and 6% did it yearly. Not cleaning up social media inboxes leads to clutter and has an environmental impact. Social media providers store user data, including old messages, photos, and videos, which consumes energy.

Moreover, the survey results indicated that data privacy and protection education are lacking, and motivation to implement green digital practices is absent. Respondents were unaware of what they were doing or why it was essential to avoid certain behaviours.

The survey showed that 83% of respondents from all countries used social media at least once daily, with half receiving notifications every hour. However, there are still

some differences that can indicate different levels of awareness when it comes to reducing unnecessary notifications. For instance respondents from Italy and Ireland reported receiving social media notifications less frequently than every 30 minutes.

The lack of regular cleaning of social media inboxes can be attributed to several factors, including the convenience of leaving old messages, photos, and videos in the inbox, the lack of awareness of the environmental impact of cluttered inboxes, and the limited understanding of the storage and energy consumption required to maintain the data.

The country-specific differences in social media use may be related to the level of education and awareness of green digital practices in each country. For instance, respondents from Italy and Ireland reported receiving social media notifications less frequently than every 30 minutes, indicating a higher awareness of the need to reduce unnecessary notifications. However, the high frequency of social media use among respondents from all countries, coupled with the low levels of regular inbox cleaning, suggests that there is still a significant lack of awareness and education about the environmental impact of social media use.

Limited use of second-hand material but consistent protection of new products

94% of the participants make sure to protect their devices

## HOW OFTEN DO YOU PURCHASE REFURBISHED/SECOND-HAND DIGITAL DEVICES?

- Everytime I buy a digital device
- Never, I prefer new devices
- Only when it's matter of price
- When I have no choice

Donut chart: 13%, 35%, 32%, 20%

Country	Everytime I buy a digital device	Never, I prefer new devices	Only when it's matter of price	When I have no choice
🇮🇪	4%	65%	12%	19%
🇮🇪	2%	29%	41%	28%
🇫🇷	22%	25%	39%	15%
🇪🇪	5%	57%	14%	25%
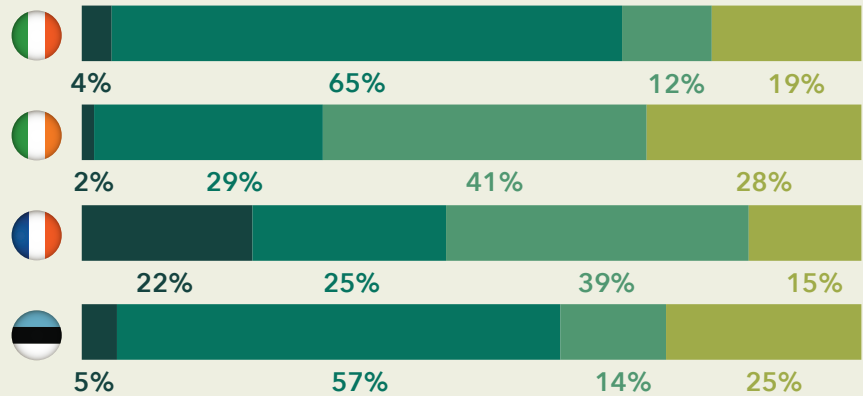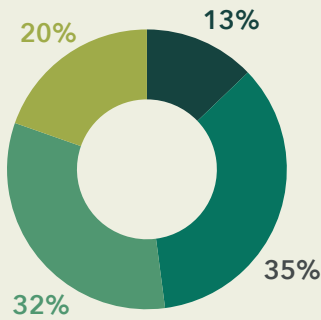
DO YOU TAKE STEPS TO PROTECT YOUR DEVICE FROM BREAKAGE?
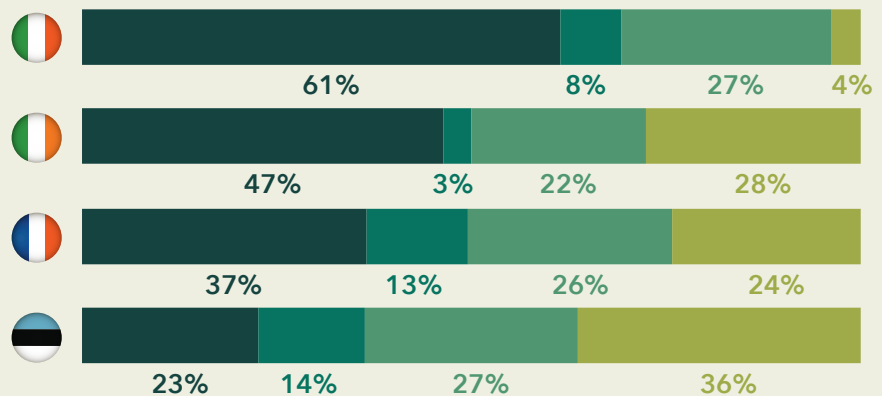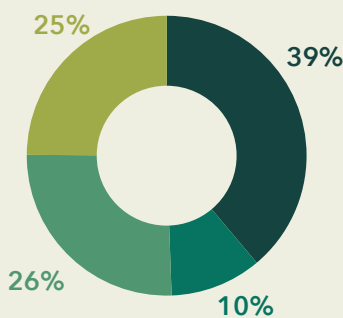(protective film/cover)

- I do both
- I do not take any protective measures
- I use a phone case
- I use a phone cover
- I use a protective film

Donut chart: 53%, 6%, 17%, 20%, 4%

Country	I do both	I do not take any protective measures	I use a phone case	I use a phone cover	I use a protective film
🇮🇪	73%	4%	23%		
🇮🇪	48%	2%	43%		7%
🇫🇷	54%	7%		39%	
🇪🇪	43%	13%	30%		14%
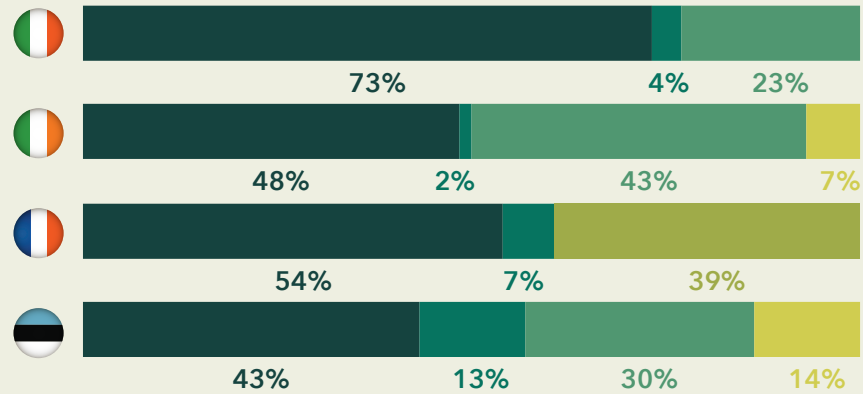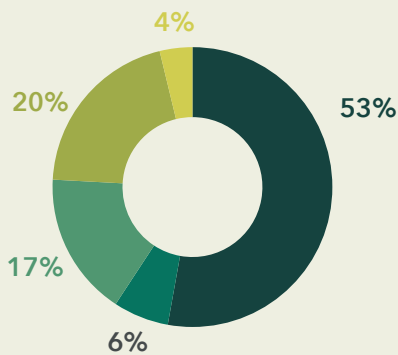
HOW OFTEN DO YOU TRY TO REPAIR YOUR BROKEN DIGITAL DEVICE RATHER THAN BUY A NEW ONE?

- Always
- Never
- Often
- Sometimes

Donut chart: 39%, 10%, 26%, 25%

Country	Always	Never	Often	Sometimes
🇮🇪	61%	8%	27%	4%
🇮🇪	47%	3%	22%	28%
🇫🇷	37%	13%	26%	24%
🇪🇪	23%	14%	27%	36%

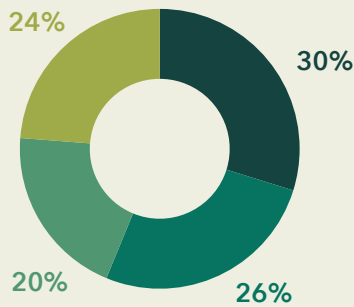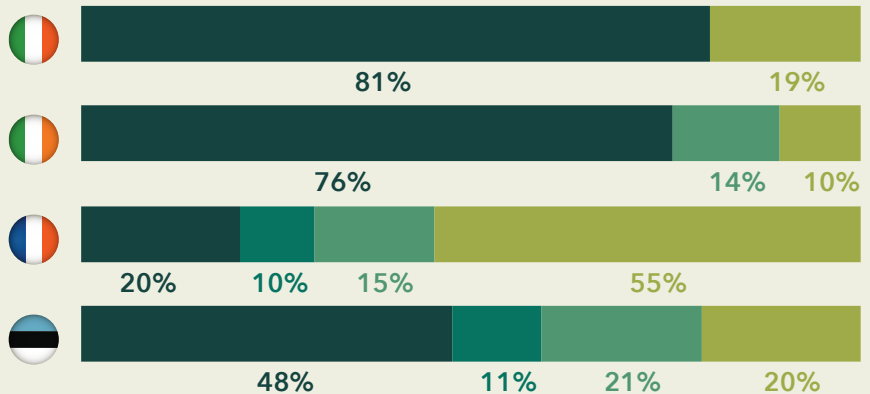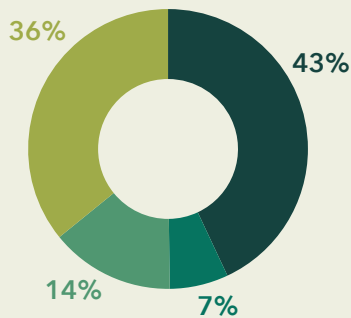## HOW OFTEN DO YOU USE DARK/NIGHT MODE ON YOUR DEVICES?

N.B. Dark/Night mode is an option that reduces the white light of devices to save battery and make it easier to see.

Legend:
- Always
- Never
- Often, even during the day
- Only at night

Donut chart values:
- 30% Always
- 26% Never
- 20% Often, even during the day
- 24% Only at night

Country bars:
Country	Always	Never	Often, even during the day	Only at night
Ireland	27%	35%	27%	11%
Ireland	45%	17%	17%	21%
France	30%	23%	21%	26%
Estonia	11%	46%	16%	27%
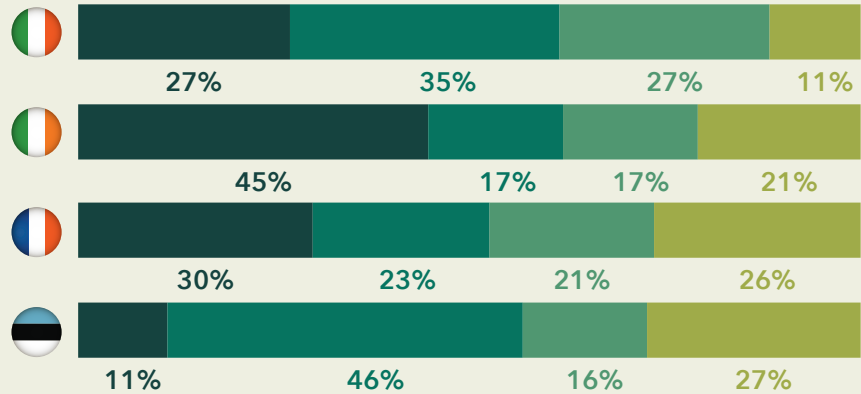
HOW OFTEN DO YOU USE WI-FI COMPARED TO MOBILE DATA (3G, 4G)?

Legend:
- Always when possible
- Never
- Often when I think about it
- Sometimes because I have no choice

Donut chart values:
- 43% Always when possible
- 7% Never
- 14% Often when I think about it
- 36% Sometimes because I have no choice

Country bars:
Country	Always when possible	Never	Often when I think about it	Sometimes because I have no choice
Ireland	81%			19%
Ireland	76%		14%	10%
France	20%	10%	15%	55%
Estonia	48%	11%	21%	20%

According to a recent survey conducted on a global scale, it was revealed that the majority of respondents (35%) never purchase refurbished or second-hand devices, with 32% only doing so when it's a matter of price and 20% when they have no other option. Only 13% always buy refurbished or second-hand devices, indicating a lack of awareness of the environmental impact of buying new devices. Additionally, 53% of respondents take protective measures for their phones, with most using phone covers (20%) or cases (17%) to preserve their phone's physical appearance and function.

Interestingly, 39% of respondents prefer to repair their broken device rather than buy a new one, although it's unclear whether this decision is motivated by financial concerns or a desire to minimise environmental impact. Finally, the majority of respondents always or often use dark/night mode on their devices (60%), potentially related to both eye health and environmental awareness. However, 26% of respondents never use dark/night mode.

Looking at country-specific differences, it was found that 57% of Estonian and 65% of Italian respondents say they never buy refurbished/second-hand devices, indicating a lack of awareness of the environmental impact of buying new devices. In contrast, 39% of French and 41% of Irish respondents admit to buying refurbished/second-hand devices when it's a matter of price, indicating a greater awareness of environmental impact.

Additionally, the survey found that most respondents in all countries use phone covers (ranging from 43% in Estonia to 73% in Italy) and protective films to protect their devices. However, there is a lack of awareness regarding the importance of using dark/night mode to save battery life, particularly in Estonia, where 45% of respondents never use it, and in Italy, where 35% never use it.

Based on the survey results, several reasons can be identified for the behaviours and attitudes of the VET professionals towards the use of refurbished/second-hand devices, protective measures for their phones, repairing broken devices, and using dark/night mode:

Firstly, the respondents' lack of awareness of their impact on the environment could be a significant reason behind the low percentage of those who buy refurbished/second-hand devices. This tendency is more evident in countries like Estonia and Italy, where the percentage of respondents who never buy refurbished/second-hand devices is high, compared to France and Ireland, where people are more likely to buy refurbi-

shed/second-hand devices only when it is a matter of price.

Secondly, the desire to preserve the physical appearance and function of their devices seems to be the main reason for the majority of respondents to take protective measures for their phones. The most common protective measures are using a phone cover or case and a protective film.
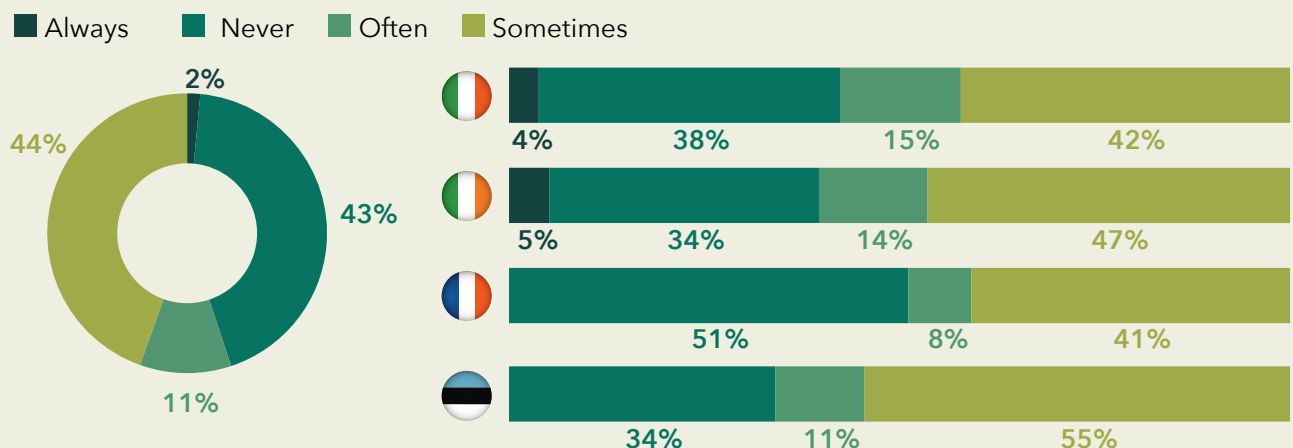
Thirdly, the majority of respondents try to repair their broken devices rather than buy new ones, which could be encouraged by reducing additional financial expenses or minimising their impact on the environment. This tendency is more evident in France and Ireland, where more than 60% of respondents repair their broken devices.

Finally, the high percentage of respondents who always or often use dark/night mode on their devices could be related to both eye health and environmental awareness. However, some respondents do not use dark/night mode, particularly in Estonia and Italy, indicating a lack of awareness of the importance of using this mode to save the device's battery.

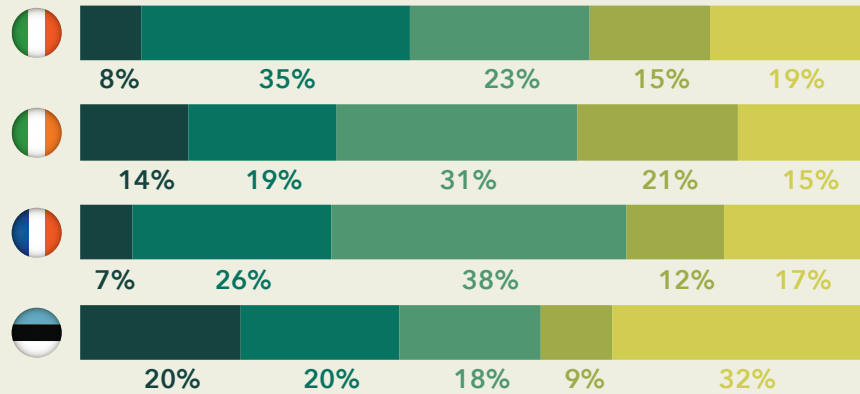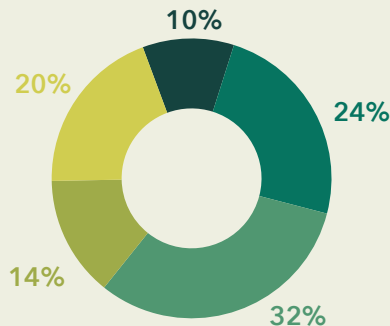## Careful use of social media to be extended to the overall management of personal data online

43% never share their personal informations on social media

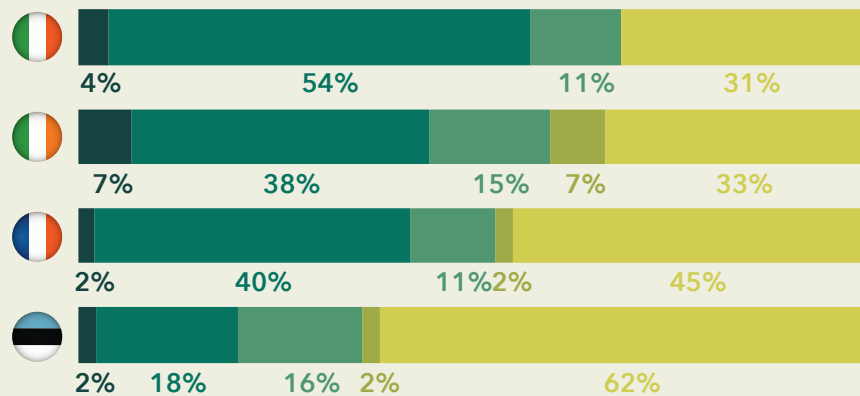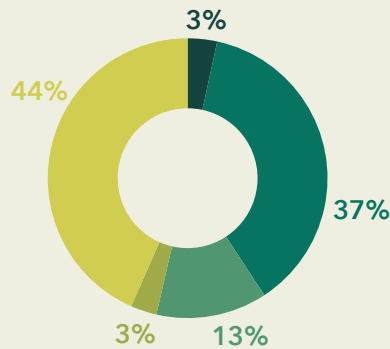### HOW OFTEN DO YOU SHARE YOUR PERSONAL INFORMATION ON SOCIAL MEDIA AND WEB PAGES?

Legend: Always · Never · Often · Sometimes

Donut chart: 2%, 43%, 11%, 44%

Ireland: 4% | 38% | 15% | 42%
Italy: 5% | 34% | 14% | 47%
France: 51% | 8% | 41%
Estonia: 34% | 11% | 55%

HOW OFTEN DO YOU DELETE BROWSER HISTORY AND COOKIES?

■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year

	Every day	Never	Once a month	Once a week	Once a year
	8%	35%	23%	15%	19%
	14%	19%	31%	21%	15%
	7%	26%	38%	12%	17%
	20%	20%	18%	9%	32%

Donut chart: 10%, 24%, 32%, 14%, 20%

HOW OFTEN DO YOU SEARCH FOR YOUR NAME ON GOOGLE TO SEE WHICH PERSONAL INFORMATION IS EASILY FOUND?

■ Every day ■ Never ■ Once a month ■ Once a week ■ Once a year

	Every day	Never	Once a month	Once a week	Once a year
	4%	54%	11%		31%
	7%	38%	15%	7%	33%
	2%	40%	11%	2%	45%
	2%	18%	16%	2%	62%

Donut chart: 3%, 37%, 13%, 3%, 44%

In this study, 57% of the respondents reported that they always, often or sometimes share personal information on social media and web pages, while 43% never do it. This difference in opinion may be because some of the respondents who never share personal information online are aware of the dangers of doing so, or they have other fears about sharing their personal information publicly. Those who do share personal information online may have fewer concerns about where their information will end up, or they may trust the security of the websites where they share their information.

The survey found that 76% of respondents delete browser history and cookies, whether it be once a year, once a month, once a week, or every day. However, there are still 24% who never delete their browser history and cookies.

In terms of checking their name online, 44% of respondents do so once a year, 13% do so once a month, 3% do so once a week, and 3% do so daily. Meanwhile, 37% never check their name online. Those who do check their name online may do so because they want to maintain a certain online image, add or delete information, or out of fear or curiosity about what kind of personal information is publicly available about them. On the other hand, those who do not check their name online may not feel the need or curiosity to maintain a certain public image, or they may not fear sharing personal information online.

When it comes to statistics per country, the responses are similar regardless of the country. Roughly half of the respondents from each country say they never share their personal information or only share it sometimes. For example, 55% from Estonia, 41% from France, 47% from Ireland, and 42% from Italy say they sometimes share their data, while 34% from Estonia, 51% from France, 34% from Ireland, and 38% from Italy say they never share their data on the Internet.
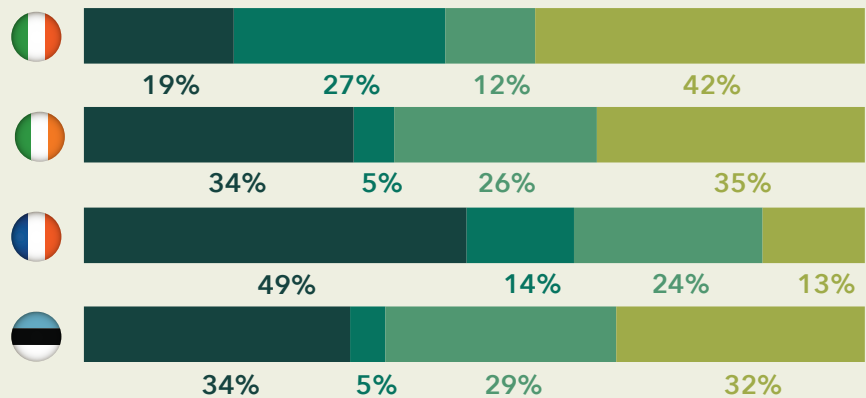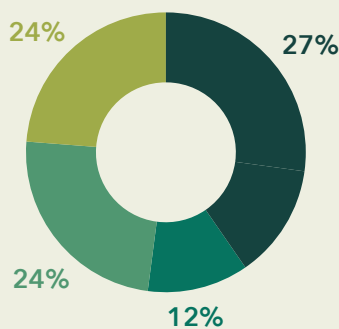
The survey also found that all respondents do not share personal information on social media, but there is little awareness of the importance of periodically checking whether their personal information is easily found on Google. Additionally, cookies and browser history are not always or often deleted in all countries, with no significant differences.

Need to strengthen efforts regarding awareness about cookies, apps and browser best practice
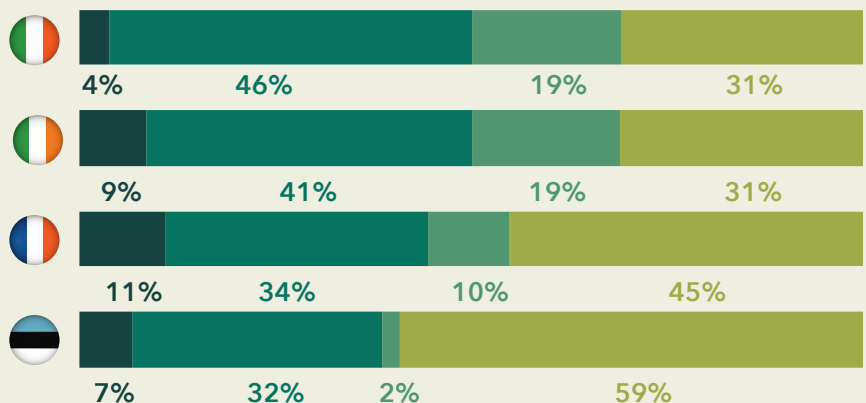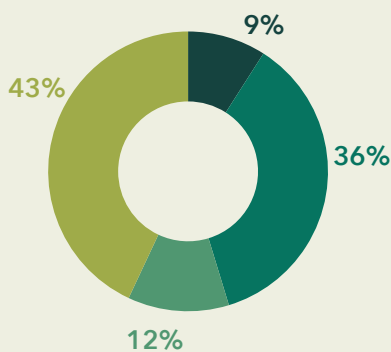
71% do research via the search engine bar

HOW OFTEN DO YOU TURN OFF THE CAMERA, WHEN NOT NECESSARY, DURING YOUR MEETINGS?

Legend: Always · Never · Often · Sometimes

Donut chart:
- 27%
- 24%
- 24%
- 12%

Country bars:
- Italy: 19% / 27% / 12% / 42%
- Ireland: 34% / 5% / 26% / 35%
- France: 49% / 14% / 24% / 13%
- Estonia: 34% / 5% / 29% / 32%

HOW OFTEN DO YOU DELETE "APPS" THAT YOU NO LONGER USE FROM YOUR DEVICE OR LAPTOP?

Legend: Never · Once a month · Once a week · Once a year

Donut chart:
- 9%
- 36%
- 12%
- 43%

Country bars:
- Italy: 4% / 46% / 19% / 31%
- Ireland: 9% / 41% / 19% / 31%
- France: 11% / 34% / 10% / 45%
- Estonia: 7% / 32% / 2% / 59%

HOW DO YOU SEARCH FOR INFORMATION ON THE INTERNET?

■ Via the address bar (https://) ■ Via the search engine bar

29%

71%

35% | 65%

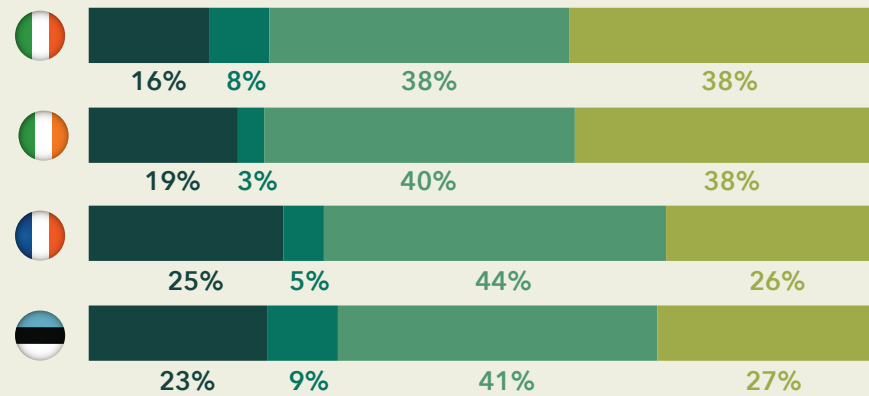24% | 76%
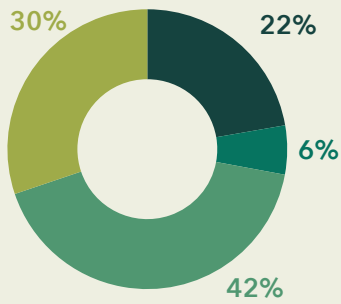
26% | 74%

39% | 61%
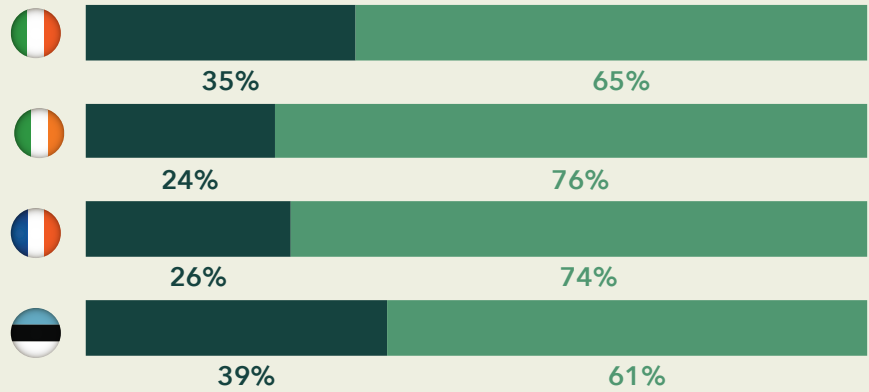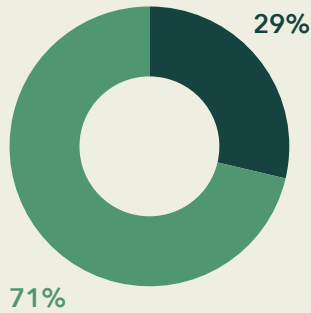
HOW OFTEN DO YOU USE THE SEARCH ENGINE BAR TO DO UNNECESSARY SEARCHES?

■ Always ■ Never ■ Often ■ Sometimes

30% 22%

6%

42%

16% | 8% | 38% | 38%

19% | 3% | 40% | 38%

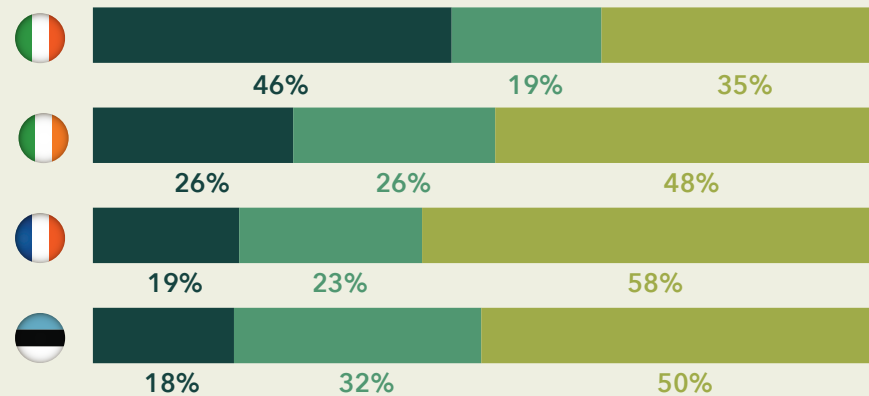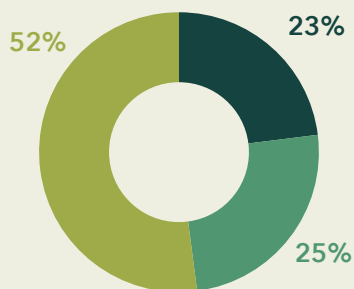25% | 5% | 44% | 26%

23% | 9% | 41% | 27%

WHAT DO YOU DO WHEN ASKED TO ACCEPT COOKIES ON WEB PAGES?

■ I always accept cookies ■ I don't know, I accept without thinking
■ I read the information and I agree only if necessary

52% 23%

25%

46% | 19% | 35%

26% | 26% | 48%

19% | 23% | 58%

18% | 32% | 50%

In this study, VET professionals were surveyed about their online habits and behaviours. Results showed that a majority of respondents, 71%, admitted to using the engine bar when searching for information online, while only 29% said they used the address bar.

When asked about accepting cookies on web pages, 52% of the respondents, which represents the majority, said they read the information and agree only if necessary. However, 25% admitted to accepting cookies without thinking and 23% always accept cookies when asked. This indicates that about half of respondents do not really consider what cookies are for, how cookies affect their digital footprint, and what information is gathered by cookies about their internet behaviour.

Regarding application management on their devices, 43% of respondents confirmed that they delete the applications they do not use from their devices once a year. However, 36% do it once a month, 12% once a week, and 9% admitted to never doing it. It appears that deleting unused applications
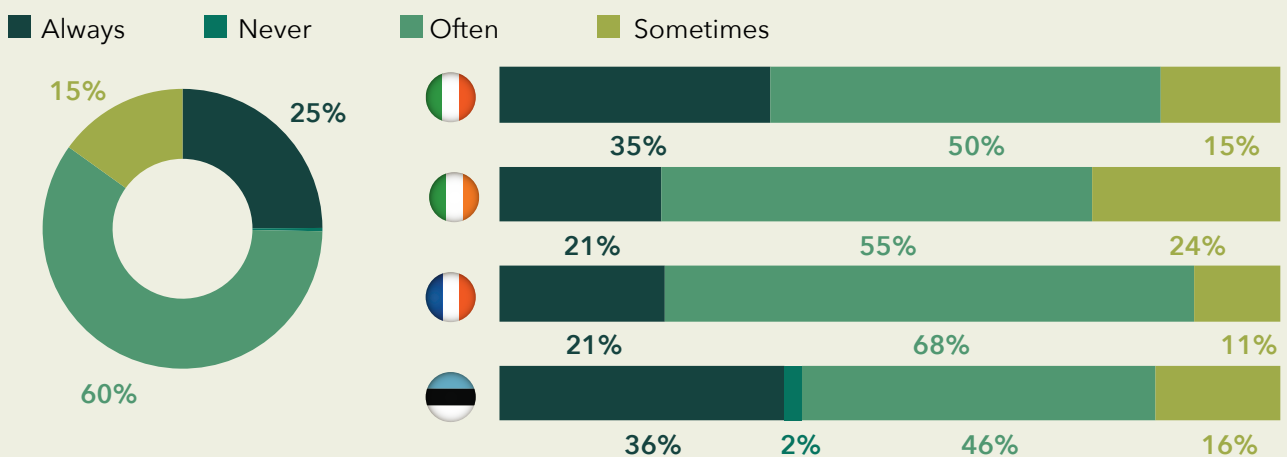
is not a priority for many respondents and is only done when storage becomes an issue.

Looking at the statistics per country, the most significant percentage of respondents who delete applications they no longer use from their device or laptop once a year is in Estonia, with a rate of 59%. This is followed by France at 45%, and Ireland and Italy at 31%. However, 46% of Italian respondents said they delete applications once a month, followed by 41% of respondents from Ireland, 34% from France, and 32% from Estonia. The reasons for the disparity across countries are unclear.

Shift in professionals behaviour: intensive digitalisation of their practice

31% prefer notebooks to tablets

HOW OFTEN DO YOU WORK WITH DIGITAL RATHER THAN PAPER DOCUMENTS?

Legend: ■ Always ■ Never ■ Often ■ Sometimes

Donut chart: 25%, 15%, 60%

Ireland: 35% / 50% / 15%
Ireland: 21% / 55% / 24%
France: 21% / 68% / 11%
Estonia: 36% / 2% / 46% / 16%

HAVE YOU EVER PRINTED DOCUMENTS AND BROCHURES AND NOT USED THEM?

■ No, as I never read them ■ Yes, and I read them ■ Yes, but I didn't read them

13%

32%

55%

	No, as I never read them	Yes, and I read them	Yes, but I didn't read them
Ireland	38%	50%	12%
Italy	33%	43%	24%
France	23%	66%	11%
Estonia	54%	39%	7%
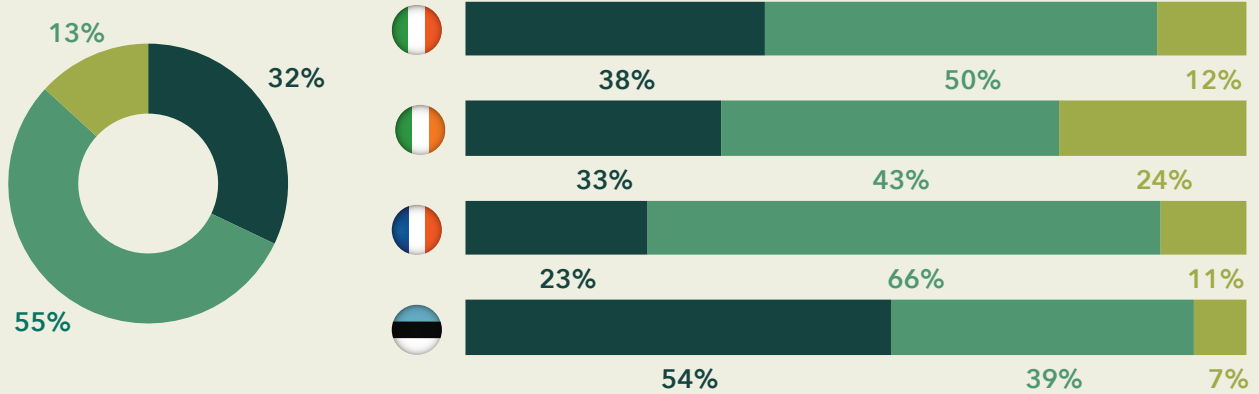
The results of a survey conducted with VET professionals show interesting insights about their digital behaviour. Firstly, a significant majority of 85% of all participants from different countries always or often use digital documents instead of paper ones, indicating a shift towards a more sustainable and eco-friendly approach. Only 15% of the respondents still rely on printed documents. Additionally, the survey revealed that among those who do print documents, 55% confirmed that they only print if necessary and intend to read them.

This suggests a more conscious and thoughtful approach to printing, which reflects a positive shift in behaviour.

Furthermore, the survey highlights that 32% of respondents stated they do not print documents that they know they will never read later, and only 13% admitted to printing documents but never using them. This indicates that people are becoming more mindful of their printing habits and are trying to minimise unnecessary printing.

When looking at the statistics per country, we can see that the highest percentage of respondents who never print documents were from Estonia (55%), followed by Italy (38%), Ireland (33%), and France (23%). Interestingly, a minority of responders in each country admitted to printing documents but never using them, with the highest percentage being in Ireland (24%) and the lowest in Estonia (7%).

05

LIMITED AWARENESS AT THE ROOT OF INSUFFICIENT GREEN DIGITAL WORKING STANDARDS
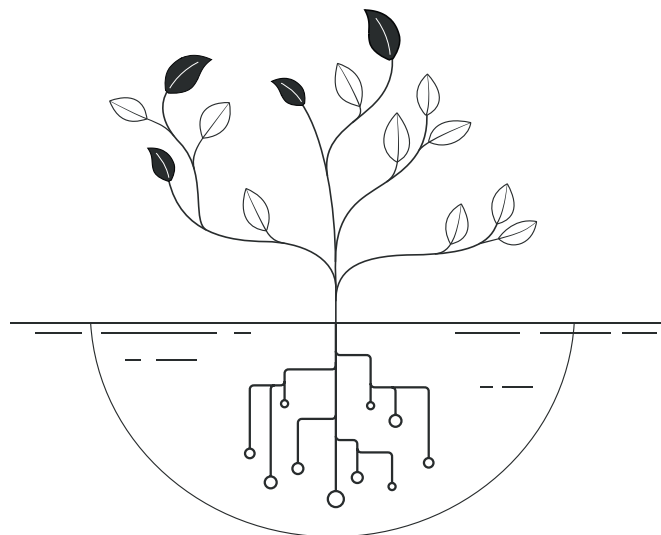
05 LIMITED AWARENESS AT THE ROOT OF INSUFFI-CIENT GREEN DIGITAL WORKING STANDARDS
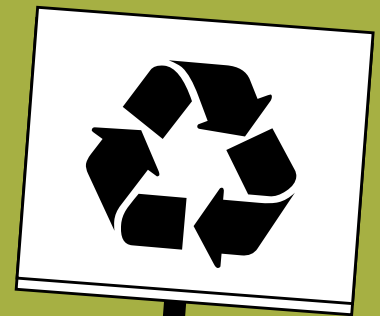
The digitalisation of our society has brought numerous benefits, such as increased efficiency and accessibility to information and services. However, it seems that the environmental impact of digital practices has been overlooked. **The results of this study indicate that individuals are not immediately aware of the environmental impact of their digital practices.** VET professionals need to be more aware and consider good environmental-friendly practices. **Finding a balance between efficiency and environmental friendliness is the main problem**. Workers do not want to be slow, but at the same time, being environmentally friendly is essential. Providing organisations with guidelines to spread good habits in digital transformation is necessary. While some individuals behave environmentally friendly by personal choice, many are unaware of the impact of their behaviour, and there is a need for education on digital environment impact and privacy.

For example, we observe an interesting contrast when it comes to stored files. O**n one side, we see that respondents delete their emails on a regular, almost daily basis. On the other side, social media inboxes and shared content are rarely cleaned.** Similarly, stored files on the computer and phone are likely to be forgotten and rarely deleted. This could be because emails are more linked to their professional areas and thus a need to keep it structured as well as of inbox capacity, emails one is limited.

Another important finding is their relation to privacy. As we can see, half of the respondents did not want to share their information but did not check Google to see if cookies about their online behaviour was stored. This can be a sign of a lack of knowledge (being unaware of the environmental impact of cookies) and practicability (refusing and deleting cookies being more time-consuming and technical).

The lack of awareness and knowledge seems to be at the heart of many practices as we observe that an overwhelming majo-

rity purchase **new devices and rarely choose refurbished or reconditioned equipment, being considered unreliable. This is untrue, as most reconditioned products are professional and reliable.** Similarly, the survey results reveal that respondents prefer to watch videos directly from platforms rather than downloading them. And half of the respondents listen to music through online platforms such as Spotify exclusively. It could be due again to their unawareness of the impact of the stream as well as their possibility to download the music on their devices.

Some day-to-day simple negligence can also be at the root of bad habits. For example, files such as those attached in emails are often automatically downloaded without a previous check if it was done before. Nevertheless, hopefully, printing documents became less and less of a norm as a large proportion of respondents do not print out documents but read them digitally, so attached documents are rarely printed (or printed more than once).

In conclusion, the study shows that people are aware of the digital impact on the environment, but it does not cross their minds immediately when they engage in digital practices. VET professionals need to be more aware and consider good practices related to environmental impact in digital transformation. Although economic considerations often come into account, finding a balance between efficiency and environmental impact is essential. Old beliefs need to be rechecked, and a new narrative needs to be created to spread good habits. Respondents are used to using digital technology for various purposes, but lack knowledge on how to make it more "green". There are differences in behaviour between countries, which could be due to policies, social campaigns, advertisements on TV, or cultural factors. People behave environmentally friendly by choice, and providing tools to organisations can be crucial to spreading good habits in digital transformation.

06 BEST PRACTICE FROM VET PROFESSIONALS

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The eGreen project recommendations

Here are some general recommendations for individuals and organisations to adopt more sustainable digital practices, which can significantly reduce the digital environmental impact:

1. **Efficient Data Management**
   One of the essential best practices is to manage data efficiently. This includes regularly cleaning digital archives, deleting duplicate files, and implementing cloud storage. The use of reminders for digital cleaning can also be beneficial.

2. **Safeguarding Devices**
   The safeguarding of devices is essential to reduce digital waste. This includes repairing broken devices instead of buying new ones, purchasing refurbished or second-hand devices, and extending the life of devices. Upgrading hardware instead of changing it can also be beneficial.

3. **Reduce Paper Use**
   Paper use significantly contributes to the digital environmental impact. It is recommended to use digital documents instead of paper to reduce paper waste, send documents digitally instead of printing them, and reuse printed paper. The use of recycled cartridges can also be beneficial.

4. **Effective Communication Management**
   Effective communication management is essential to reduce digital waste and energy consumption. This includes reducing the number of unnecessary email communications and online meetings. It is also recommended to use energy-efficient devices and optimise streaming settings.

5. **Energy-Saving Practices**
   Energy-saving practices are essential to reduce the digital environmental impact. This includes turning off devices when not in use, using energy-efficient devices, and encouraging the use of cleaner software. This can also result in cost savings for organisations.

6. **Encourage the Use of Cleaner Software**
   Cleaner software is another essential best practice to reduce digital environmental impact. This includes encouraging the use of open-source software, which is often more energy-efficient than proprietary software. Additionally, choosing software that does not require excessive energy consumption or processing power is crucial.

7. **Limit Social Media Usage**
   Social media usage can also contribute to the digital environmental impact. It is recommended to intentionally disconnect from digital tools to reduce this impact intentionally, limiting personal screen time, and regularly cleaning social media inboxes. Educating users about the risks of sharing personal information online and implementing strict data protection regulations is also essential.

What the VET professionals across Europe recommend

The implementation of sustainable practices is of paramount importance in mitigating the environmental impact of digital technology. The survey has identified several best practices endorsed by vocational education and training (VET) professionals from Estonia, France, Ireland, and Italy. When asked if they could share any good practices, VET professionals highlighted seven primary best practices critical for a successful green digital transformation.

HERE IS A TABLE OF ALL THE SHARED RECOMMENDATIONS

AREA	RESPONDENTS' RECOMMENDATIONS
Emails	
	• Upload documents online instead of downloading them • Create folders organised to avoid duplicating documents use We-transfer not to burden the mail • Avoid sending unnecessary emails such as, for example, thank-you notes for the transmission of a document • Speak directly to colleagues when they are present • Delete advertising messages as received and clean inboxes regularly, and encourage students to do the same • Do not send attachments • Information to colleagues to encourage the use of the professional cloud rather than Email and attachments
Storage	
	• Copy contacts if necessary, work and save locally, and share files via the cloud • Monthly reminder for digital cleaning • Use of an erasable glass tablet instead of post it to take ephemeral notes • Clean up inbox very often by deleting emails permanently • Implementation of a shared document storage area
Streaming/video	
	• Use energy-efficient devices • Understand local regulations on digital sustainability
Social media	
	• Disconnect social media in the evening and at weekends • Turn off digital tools every night • Closing background notifications several times a day • Turn off digital devices if not needed for a set time

AREA	RESPONDENTS' RECOMMENDATIONS
Devices/digital tools	
	• Buy new digital equipment only when it is needed
	• Use fewer devices to save energy, repair those that no longer work
	• Periodically revise PCs and Notebooks to upgrade and update the hardware instead of changing them completely when performance drops
	• Insist on closing the screen and computer at the end of the course
	• Turn off devices when not in use (avoid leaving them on standby)
Cybersecurity	
	• Educate users on the risks of sharing personal information online
	• Encourage regular name checks online
	• Implement strict data protection regulations
	• Invest in cybersecurity technologies and training
	• Foster a culture of security and privacy among users
Platform/apps	
	• Try to do more physical meetings avoiding online meetings and unnecessary communications via Email
	• Switching off digital tools whenever possible
	• Almost systematic use of Ecosia on PC and mobile
	• Be mindful of data usage to avoid unnecessary energy consumption
Documents/guide	
	• Use recycled cartridges and reuse printed paper
	• Eliminate books where practical exercises can be done
	• With the tools at our disposal today, we can do a lot, such as minimising the use of paper by sending documents digitally

07

CONCLUSION

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In a world where digitalisation has revolutionised the way we live, work and play, it's no secret that the benefits are countless. From the convenience of accessing information at the touch of a button to the ease of connecting with people from all corners of the world, it's hard to imagine life without technology. However, what's often overlooked is the environmental cost of our digital practices.

This study has revealed that while individuals engage in digital practices regularly, they are often unaware of their impact on the environment. This is a wake-up call for VET professionals and organisations to promote environmentally-friendly practices in digital transformation. Striking a balance between efficiency and environmental impact is crucial, and we need to start challenging old beliefs about refurbished or reconditioned equipment.

The lack of knowledge and awareness is the culprit behind many bad digital habits. It's time to create a new narrative to spread good habits and provide education to ensure that people are making more environmentally-friendly choices. Let's equip organisations with the tools they need to promote good environmental practices, so people can make informed decisions and behave in a more eco-friendly way by choice.

Ultimately, we must work together to find solutions that minimise the environmental impact of digital practices. It's not just about sustainable development, but about our responsibility to protect the planet and ensure that future generations can enjoy it too. So let's take action today, to create a greener tomorrow !

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