

OBSOLESCENCE

APPENDICES

OF HOME APPLIANCES AND ELECTRONICS: WHAT IS THE ROLE OF THE CONSUMER?



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Changing the world, one step at a time

APPENDIX 1:

Table of professional reports analyzed

Date of publication	Title	Authors	Organization	Type of report
July 2017	Impact du développement des objets connectés sur la réparation, les compétences et la formation (L') Étude prospective 2020 (http://www.ademe.fr/impact-developpement-objets-connectes-reparation-competences-formation-l)	Carcaillon, Pascal, and Heger, Bernard	ADEME	Study, report, 68 pages
June 2017	Des tiroirs pleins de téléphones remplacés : consommateurs et objets à obsolescence perçue (http://www.ademe.fr/sites/default/files/assets/documents/coop-201706_rapport.pdf)	Kreziak Dominique, Prim-Allaz, Isabelle and Robinot, Elisabeth	ADEME	Research report of the COOP project (Consommateurs et Objets à obsolescence Programmée), 54 pages
April 2017	Rapport du Gouvernement au Parlement sur l'obsolescence programmée, sa définition juridique et ses enjeux économiques, en application de l'article 8 de la loi du 17 mars 2014 relative à la consommation (https://www.ecologique-solidaire.gouv.fr/sites/default/files/RAPPORT_Obsolescence_programmee.pdf)	French government	République Française	Report, 31 pages.
February 2017	From smart to senseless: The Global Impact of 10 Years of Smartphones (http://www.greenpeace.org/usa/wp-content/uploads/2017/03/FINAL-10YearsSmartphones-Report-Design-230217-Digital.pdf)	Jardin, Elisabeth	Greenpeace	Report/study, 16 pages
December 2016	Étude sur le réemploi des équipements électriques et électroniques ménagers (http://www.ademe.fr/etude-reemploi-equipements-electriques-electroniques-menagers)	Mnier, V., Tinetti, B., Berthoux, B., Beuret, P., Caritte, V.	BIO BY DELOITTE, ADEME	Report/study, 125 pages.
February 2016	Allongement de la durée de vie des produits (http://www.ademe.fr/allongement-duree-vie-produits)	CHAUVIN Clément, FANGEAT Erwann et le pôle usage et durée de vie - ADEME	ADEME	Report/study, 56 pages.
July 2015	Réemploi, réparation et réutilisation Édition 2015. http://www.ademe.fr/reemploi-reparation-reutilisation	ADEME	ADEME	ADEME
December 2014	Durée de vie des équipements audiovisuels (http://www.ademe.fr/sites/default/files/assets/documents/duree-vie-equipements-audiovisuels-201412-rapport-final.pdf)	Lehuede, F., and Colin, J.	Simavelec, ADEME Credoc	Report/study, 145 pages.
July 2014	Perceptions et pratiques des Français en matière de réemploi des produits Édition 2014 (http://www.ademe.fr/sites/default/files/assets/documents/etude-socio-reemploi-2014-rapport-final.pdf)	IFOP	ADEME	Report/study, 82 pages.
April 2013	L'obsolescence programmée ou les dérives de la société de consommation (https://www.europe-consommateurs.eu/fileadmin/user_upload/eu-consommateurs/PDFs/publications/etudes_et_rapports/Etude-Obsolescence-Web.pdf)	Centre Européen de la Consommation de Kehl	Centre Européen de la Consommation de Kehl	Report, 21 pages.
December 2012	Obsolescence des produits high-tech. Comment les marques limitent la durée de vie de nos biens (http://www.amisdelaterre.org/IMG/pdf/rapport-op-2012-bdef.pdf)	Lecomte, C.	Les amis de la Terre/CNIID	Report, 24 pages.
July 2012	Étude sur la durée de vie des équipements électriques et électroniques (http://ademe.typepad.fr/files/dur%C3%A9e-de-vie-des-eee.pdf)	Anderson, G., Faninger, S., Lockwood, S., Mudgal, S., & Tinetti, B.	ADEME, BIO Intelligence service SAS	Study, 100 pages
June 2011	Durabilité des appareils de GEM – Les consommateurs ont la parole. Études réalisées en septembre 2010 et février 2011 (http://www.tns-sofres.com/sites/default/files/2011.06.29-durabilite.pdf)	TNS SOFRES	TNS SOFRES	Study, 22 pages.
September 2010	L'obsolescence programmée, symbole de la société du gaspillage. Le cas des produits électriques et électroniques. (http://www.cniid.org/IMG/pdf/201009_rapport_OP_AdT_Cniid.pdf)	Fabre, M., & Winkler, W.	Les amis de la Terre/CNIID	Report, 28 pages.

APPENDIX 2 : Synthesis of the main academic studies on relative obsolescence based on the reasons for replacing a good¹

Author(s)	Dimension(s) of obsolescence/reasons for product replacement	Type of study	Sample
Packard (1960)	Function, quality, desirability or psychology	Conceptual (description of practices in the U.S.)	n/a
Levinthal and Purohit (1989)	Style	Conceptual (economic modelling)	n/a
Heiskanen (1996)	Malfunction, dissatisfaction, changes in the consumer's life	Conceptual	n/a
Granberg (1997)	Functional, psychological	Conceptual	n/a
Kostecki (1998) ²	Functional, economy, symbolic durability	Conceptual	n/a
Cooper (2004)	Psychological (abstract and subjective), economic, technological	Empirical (focus groups and survey)	n1= 50 (citizens in G.-B.) n2= 802 (citizens in G.-B.)
Guiltinan (2009)	Physical, technological	Conceptual	n/a
Guiltinan (2010) ³	Idem Guiltinan (2009)	Conceptual	n/a
Lyberg and Bomboma (2010) ⁴	Six items adapted from the definition by Guiltinan (2009)	Empirical (survey)	n=110 ((students in Suède)
Durif, Kreziak, Prim-Allaz and Robinot (2014) ⁵	Repairability, pursuit of novelty, donation, performance/technology	Empirical (interviews, focus groups and survey)	n1=35 (French citizens) n2=30 (students) n3=1048 (French citizens)

APPENDIX 3 : Synthesis of the main professional studies on obsolescence/reasons for product replacement⁶

Author(s)	Dimension(s) of obsolescence/reasons for product replacement	Type of study	Sample
ADEME (June 2017)	(product = coffee maker) Associated economic, technological, psychological or affective obsolescence	Empirical (survey)	n=506 (French citizens)
	(product = washer) Technological obsolescence	Empirical (survey)	n=500 (French citizens)
	product = cell phone) Technological obsolescence	Empirical (survey)	n=542 (French citizens)
Centre Européen de la Consommation (2013)	Technological or technical obsolescence, obsolescence by expiration date (expiration dates on food products), aesthetic, ecological	Conceptual	n/a
ADEME (July 2012)	Functional obsolescence, style obsolescence	Conceptual	n/a
HOP (2017) ¹⁷	Technical obsolescence (also called functional or structural), aesthetic (also called psychological or cultural), software obsolescence	Conceptual	n/a
Observatoire de la consommation responsable pour <i>Protégez-Vous</i> (2012)	Financial, technological, psychological, energy-efficiency	Empirical (survey)	n1= 9,571 (citizens in Quebec; product: dishwasher) n2= 9,624 (citizens in Quebec; product: washing machine)
Report to the National Assembly (France) (October 2011)	Indirect, incompatibility, aesthetic, functional, after-sale service obsolescence	Conceptual	n/a
Consoglobe (February 2011)	Products that are “discounted” but less robust, non-repairable; technological sophistication and innovations but less resistant	Conceptual	n/a
Les Amis de la Terre and Cniid (Marine Fabre and Wiebke Winkler, September 2010) ¹⁰	Technological or technical obsolescence, psychological or aesthetic obsolescence	Conceptual	n/a

APPENDIX 4 : Inventory of initiatives to fight obsolescence

Table 1 : Examples of citizen actions against obsolescence

Initiative	Description	Date established	Country
Zero Waste Canada https://zerowastecanada.ca/	A grassroots environmental protection organization that advocates for waste reduction and more sustainable waste management. Zero Waste Certification distinguishes them from other initiatives.	—	Canada (BC) and international
Letter entitled “Lutter contre l’obsolescence” Pascal Grenier, Québec http://carnet.simplicitevolontaire.org/2017/07/lutter-contre-l-obsolescence-programmee/	Letter to the Canadian Environment Minister calling for planned obsolescence to be included in next round of NAFTA talks.	2017	Canada (QC)
PRODUITS DURABLES http://www.produitsdurables.fr/	Joint initiative of <i>Comment réparer.com</i> and <i>HOP</i> . Product recommendations by citizens.	—	France
HOP/Halte à l’obsolescence programmée http://www.halteobsolescence.org/	Organization dedicated to fighting planned obsolescence: obsolescence monitoring, educational content, production of topical articles, committees of experts, resources, etc.	2015	France
Les Amis de la Terre http://www.amisdelaterre.org/	Organization advocating for the transition to sustainable societies.	1970	France and 76 countries
Green IT https://www.greenit.fr/	Forum for reflection on issues related to sustainable/responsible digital IT.	2004	France
Après l’achat.com http://www.apreslachat.com/	Community of consumers whose goal is to help each other and influence relations with manufacturers and retailers. Also offers group buying and consumer opinions on products.	2009	France
The Story of Stuff http://storyofstuff.org/	The Story of Stuff project began with an animated movie on how we make, use and dispose of objects on a daily basis. Has grown into a vast community working to build a healthier and fairer planet.	2012	United States
Pétition Tell Samsung to end planned obsolescence Greenpeace- https://www.rethink-it.org/en/	Petition against smartphone brands that do not offer solutions to reduce the environmental impacts of their electronic products (targets: Apple, Samsung, LG)	—	International

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Table 2 : Examples of communication actions by companies to fight obsolescence

Initiative	Description	Date established	Country
SEB http://www.seb.fr/ http://www.seb.fr/produits-reparables	SEB Group - a leading world manufacturer of small household appliances; since 2016, bills itself as the “champion in the fight against planned obsolescence.” Intends to gradually extend the warranty to 10 years on nearly all its products and those of its other brands.	2016	France
CAMIF https://www.camif.fr/la_consommation_responsable.html	The president of CAMIF has called for incentives for durable products and launched an online petition. Calls on manufacturers and products to follow certain criteria: environmental, local production, 10-year reparability for home appliances, energy efficiency.	2017	France
Malongo http://www.malongo.com/	Malongo launched the Ek’oh in January 2013: a coffee maker made in France, repairable and with a 5-year consumer warranty.	2013	France
Michelin http://www.michelin.ca/CA/fr/homepage.html	Michelin is actively engaged in sustainable innovation.	—	France
Common Threads Initiative Patagonia https://www.patagonia.com/blog/2011/09/introducing-the-common-threads-initiative	Patagonia promotes the reuse and resale of its used products. Incentives for the repair of its products (tutorials).	2011	United States

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Table 3: Examples of initiatives by private organizations offering value-added products/services to fight obsolescence

Initiative	Description	Date established	Pays
Island Ink.Jet & Laser toners https://www.islandinkjet.com/	Printer ink cartridge refill service.	2001	Canada (BC)
MaGarantie5ans https://www.magarantie5ans.fr/	E-commerce website offering durable and repairable home appliances.	2016	France
BLACKMARKET http://www.malongo.com/	E-commerce website offering reconditioned high-tech products.	2014	France
L’increvable http://lincrevable.com/fr/	Clothes washer designed to be durable, repairable and upgradable.	2015	France
Suguru https://sugru.com	Mouldable, silicone-based glue for repairing all kinds of objects.	2003	Ireland
Swedish Stockingsa https://www.swedishstockings.com/	Recycled, durable stockings made with respect for the environment.	—	Sweden
BuyMeOnce https://buymeonce.com/	E-commerce website offering durable products.	2016	UK

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Table 4: Examples of tools/guides and information campaigns on the fight against obsolescence

Initiative	Description	Date established	Country
Les Rendez-Vous sur l'obsolescence Initiative commune https://www.rdvobsolescence.com/	Series of events to promote awareness of obsolescence.	2017	Canada (QC)
Écofête SODER http://www.soder.qc.ca/nouvelles/ecofete-2017	Selling of small used objects by citizens.	1998	Canada (QC)
Semaine québécoise de la réduction des déchets Zéro Déchet Québec- https://sqrd.org	Awareness campaign promoting reduction of waste and alternative solutions to consumption.	2000	Canada (QC)
Guide pour un système d'information écoresponsable WWF http://awsassets.wwffr.panda.org/downloads/guidentic27042011_110801093454_phpapp01.pdf	Report by WWF France on the impact of ICTs aimed at procurement managers and customers.	2011	France
Guide Consommer mieux ADEME http://www.ademe.fr/consommer-mieux	Practical guide to encourage citizens to purchase and use everyday products wisely.	2016	France
Guide Comment faire durer des objets ADEME http://www.ademe.fr/comment-faire-durer-objets	Guide to help consumers extend the life of their objects.	2016	France
Tout savoir sur les garanties https://www.economie.gouv.fr/files/files/directions_services/dgccrf/documentation/publications/depliants/tout-savoir-sur-les-garanties.pdf	Guide produced by the French Ministry of the Economy and Finance on consumers' rights, particularly concerning warranties.	2017	France
Journée nationale de l'entretien et de la réparation de l'électroménager - GIFAM - http://www.gifam.fr/articles/category/http-www-gifam-fr-page-journee-nationale-de-l-entretien-et-de-la-reparation-html.html	Raising citizens' awareness about the advantages of maintaining and repairing their home appliances.	2015	France

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Table 5: Examples of labels related to the fight against obsolescence

Initiative	Description	Date established	Country
"Protégez-Vous" seal https://www.protegez-vous.ca/PV/Cherchez-le-sceau-Protégez-Vous-recommande	Allows consumers to identify products that stood out from the competition in testing; intended as a guarantee of quality.	2016	Canada (QC)
Ecologo/UL https://industries.ul.com/environment/certificationvalidation-marks/ecologo-product-certification	Certification program based on the evaluation of the lifecycle of products to help companies and consumers identify the most environmentally friendly products.	1988	Canada
Ecolabel Européen http://www.ecolabels.fr/fr	The only official environmental label useable in all countries belonging to the European Union and taking into consideration the "life cycle of the product."	1992	Europe
Nordic Swan Ecolabel http://www.nordic-ecolabel.org/	Assesses the environmental impacts related to product lifespans. Very strict environmental and climate standards.	1989	Scandinavian countries
TCO Certified http://tcocertified.com	Main independent source of certification of durability for computer products. Strict criteria for all phases of the lifecycle for the following products: monitors, laptops, tablets, smartphones, desktop computers, projectors and earphones.	1992	Sweden
Cradle to Cradle Certified™ http://www.c2ccertified.org/	Guides designers and manufacturers thanks to a process of continuous improvement that assesses products according to five quality attributes: material health, material reutilization, renewable energy & carbon management, water stewardship, and social fairness. Independent evaluations conducted every two years.	2010	Netherlands
Blue Angel https://www.blauer-engel.de/en	Indicates that the product is less harmful for the environment and health than its competitors, without loss of performance. Certifies the entire lifecycle of the product; reviewed every 3 to 4 years. Also monitors environmental certifications globally.	1978	Germany

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Table 6: Examples of regulatory initiatives in the fight against obsolescence

Initiative	Description	Date established	Country
Regulation respecting the recovery and reclamation of products by enterprises Environment Quality Act - http://legisquebec.gouv.qc.ca/fr/ShowDoc/cr/Q-2,%20r.%2040.1	Law and regulation adopted for the recovery and reclamation of products by companies, aimed at reducing quantities of waste matter and making businesses accountable.	July 2012	Canada (QC)
RECYC-QUÉBEC https://www.recyc-quebec.gouv.qc.ca/	Also known as La Société québécoise de récupération et de recyclage, its aim is to promote, develop and foster the reduction, reuse, recovery and recycling of containers, packaging, materials or products and their valorization in Quebec, with a view to conserving resources, favouring the circular economy and fighting climate change.	1990	Canada (QC)
Résolution du Parlement européen pour une durée plus longue des produits http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2017-0287+0+DOC+XML+V0//FR	European Parliament resolution in favour of longer product lifespans; promotes the advantages for consumers and businesses.	July 4, 2017	Europe
Bureau européen des consommateurs http://www.beuc.eu/durable-goods	Section on obsolescence containing information (notably on warranties), recommendations, etc.	—	Belgique
Programme national de prévention des déchets https://www.ecologique-solidaire.gouv.fr/sites/default/files/Programme_national_prevention_dechets_2014-2020.pdf	National waste prevention program providing for the gradual implementation of 54 concrete actions, including regulatory tools, voluntary actions, information sharing, support and incentives.	2014	France
Loi sur la transition énergétique (Energy Transition Law) https://www.legifrance.gouv.fr/affichCodeArticle.do;jsessionid=8E37AEE1DADEF596ECC402C6CA37B45F.tplgfr27s_1?cidTexte=LEGITEXT000006069565&idArticle=LEGIARTI00032225325&dateTexte=20170925&categorieLien=id#LEGIARTI00032225325	Prohibits the practice of planned obsolescence, subject to significant penalties. This law has led to reduced volumes of waste and favoured the transition to a circular economy	August 17, 2015	France
Complaint for planned obsolescence and deception filed by HOP against HP before the Public Prosecutor in Nanterre http://www.halteobsolescence.org/les-fabricants-dimprimantes-mis-en-cause-par-une-plainte/	The lawsuit challenges the practices of printer manufacturers aimed at deliberately shortening the lifespan of printers and cartridges. First lawsuit in France based on the illegal practice of planned obsolescence.	2017	France
Legal warranty of conformity extended to two years - French Government - https://www.economie.gouv.fr/consommation-garantie-legale-de-conformite-etendue-a-2-ans	For goods purchased new after 2016, in case of non-conformity in the 2-year period following the purchase, it is now up to the professional, not the consumer, to prove that the defect does not exist.	March 18, 2016	France
Mandatory information on the availability of spare parts -French Government https://www.conso.net/content/information-sur-la-disponibilite-des-pieces-detachees	Under France's Loi Consommation, manufacturers are required to inform retailers of the date until which the spare parts necessary for the repair of its products will be available.	March 1 st , 2015	France
Reduction of taxes on repairs of everyday objects -Swedish Government	Applies to objects such as shoes, clothing, home appliances, bicycles, refrigerators and washing machines. Tax reduced from 25% to 12%.	2016	Sweden

APPENDIX 4 : Inventory of initiatives to fight obsolescence

Table 7: Examples of initiatives by citizens or non-profit organizations (NPOs) based on support for product repairs

Initiative	Description	Date established	Country
Collège Ville-Marie http://www.cvmarie.qc.ca/des-eleves-benevoles-pour-lutter-contre-l'obsolescence-programmee/	Students at this high school worked on solving hardware and software problems related to the school's computer fleet, with the help of computer experts from Insertech and Microcom.	2017	Canada (QC)
Touski s'rèpare https://www.facebook.com/groups/touskisrepare	A community for sharing tips and advice to facilitate the repair of all kinds of objects (ex: personal knowledge, web resources, tutorials, professional services, etc.).	2017	Canada (QC)
REPAROTHON http://www.insertech.ca/reparothons/	Free community event organized by Insertech, where volunteers with computer and electronics expertise help people diagnose and, if possible, repair appliances and devices in order to extend their useful life.	2016	Canada (QC)
La Fabrique https://www.lafabriquecoop.org	Solidarity cooperative offering workshops and shared workspaces in downtown Sherbrooke. Makes available tools, equipment, rental spaces, etc.	2013	Canada (QC)
La Remise http://laremise.ca/	Not-for-profit solidarity cooperative that acts as a tool library for its members, who can borrow from a large collection of commonly used tools (kitchen, carpentry, crafts, mechanical, gardening, electricity, etc.).	2015	Canada (QC)
COMMENT RÉPARER.COM https://www.commentreparer.com/	A mutual support community devoted to the repair of home appliances	2011	France
LA RECYCLERIE http://www.larecyclerie.com/	This innovative project combines a coffee shop, an urban farm and a collaborative repair workshop.	2014	France
RESTART https://therestartproject.org/	A London-based international charity that encourages citizens to extend their use of electronic devices to reduce waste.	—	G.-B.
REPAIR CAFÉ https://repaircafe.org	Citizens' movement focused on repairing objects of all types with the help of volunteer experts	2007	Netherlands
IFIXIT https://therestartproject.org/	Wiki-based website aimed at teaching people how to repair just about anything (includes tutorials).	2003	United States

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Table 8: Examples of initiatives by private organizations based on support for product repairs

Initiative	Description	Date established	Country
SPAREKA http://www.spareka.fr/	Site specializing in the sale of spare parts and accessories for home appliances, pools and automatic gate and garage door openers.	2006	France
M2 http://www.mcarre.fr/	Site for the personalized and secure refurbishment of computers, tablets, smartphones, regardless of age or operating system, adapted to all users.	2016	France
Save https://www.save.co/en/fr	Site for the repair of electronic devices (diagnostics and express repair at the client's home or mail-in for repair within days). Transactional platform for buying or selling used electronics (dedicated application).	2013	France
Remaker https://www.remaker.fr/	Smartphone and tablet repairs.	—	France
REPAR'TOUT http://www.repar-tout.com/	Specializes in repair events: repairs to appliances, cars, scooters, and upcycling services. Services offered: Repair'day (raising awareness about the circular economy); Repair'lab (teambuilding through repairs and upcycling), Pick & Fix (repair concierge).	—	France
SOSAV – Réparons tout nous-mêmes https://www.sosav.fr/	Site offering repair guides, spare parts, smartphone insurance service and repair service.	2011	France

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Table 9 : Examples of recycling, reuse, and resale initiatives

Initiative	Description	Date established	Country
EPRA (Electronic Products Recycling Association)	Created by stakeholders in the electronics industry, EPRA's mandate is to ensure the implementation of the recovery and reclamation system for products at the end their useful life in accordance with provincial regulation. improve the effectiveness of regulated electronics recycling programs across Canada managed by the private sector. Helps businesses and consumers manage their electronics in a responsible manner.	2011	Canada
ELECTROBAC http://www.electrobac.com/	Network of public recycling bins for small electronics; one of the official drop-off points of EPRA-Québec. Offers businesses a buy-back program for cell phones. The devices are then refurbished (for reuse) or recycled.	2011	Canada (QC)
INSERTECH http://www.insertech.ca/	A socio-professional reintegration organization for young adults that refurbishes computers and resells them at a low cost.	1998	Canada (QC)
101 Trouvailles -Ressourcerie Bernard Hamel - http://www.rbhrn.com/101-trouvailles/tout-pour-la-maison	Activities based on the resale of second-hand objects and including waste recovery and recycling (Magasin 101 Trouvailles). The organization provides information to the public on how to dispose of waste ecologically and on environmentally friendly consumption.	1997	Canada (QC)
Computation http://www.computation.ca/index.html	Offers a range of IT services for citizens as well as small and medium businesses (Windows, MAC and Linux). Computer hardware recycling activities, technical support for networks and cabling, sale of refurbished equipment.	2001	Canada
Dantech http://www.dantech.ca/fc/	Montreal company offering used and new computers for sale, repair services and recycling.	—	Canada (QC)
Réseau CFER http://reseaucter.ca/	CFER is a network that trains young people experiencing adjustment difficulties. Nine of their sites recover computer materials.	1990	Canada (QC)
OPEQ http://www.opeq.qc.ca/	Refurbishes computer equipment that no longer meets the professional needs of private companies and government and transforms it into eco-responsible equipment adapted to the needs of its clients (schools, daycares, libraries, individuals and housing coops).	1998	Canada (QC)
Electronics Product Stewardship Canada (EPSC) http://epsc.ca/?lang=fr	An NPO comprised of 16 leading electronics manufacturers and dedicated to the recycling of electronics products in Canada.	2004	Canada
Electronics Recycling Program - Best Buy - https://www.bestbuy.ca/fr-CA/electronics-recycling.aspx?cmp=vrd-hc8186	Drop-off program for electronic products for recycling, regardless of where they were initially purchased.	2013 (in QC)	Canada (CB, AB, ON, QC, SK, MA)
Programme « On recycle » -Vidéotron (Québecor)- http://www.videotron.com/onrecycle	Drop-off Recovery program for small electronic products (cell phones, residential phones, tablets, e-readers, game consoles, digital receivers, terminals, routers, modems, USB keys, cables, connectors, chargers, earphones, remotes, rechargeable and non-rechargeable batteries).	2012	Canada (QC)
Bell Blue Box Program - BELL- http://www.gnb.ca/0048/pcsdpc/CommunityEvent/General2014/BelllanceleprogrammeleBacBell.pdf	Drop-off Recovery program for old batteries modems, accessories and mobile devices. and television receivers.	2003	Canada

APPENDIX 4 : Inventory of initiatives to fight obsolescence

Table 9 (suite) : Examples of recycling, reuse, and resale initiatives

Initiative	Description	Date established	Country
Les Ateliers du Bocage http://www.videotron.com/onrecycle	A social-inclusion cooperative organization and member of the Emmaüs international solidarity movement; collection of used devices, reuse, repairs, sale of second-hand products, production and recycling of pallets, etc.	1977	France
ENVIE http://www.envie.org/	Repairs and refurbishes a large range of home appliances in its workshops and resells them at a low cost.	1984	France
Seconde vie -Ikea- http://www.ikea.com/ms/fr_FR/customer-service/about-services/Seconde-vie/seconde_vie.html	Buys back furniture in good condition from its customers in exchange for a store gift card. Development of a recycling program for sofas, mattresses, home appliances, batteries and lightbulbs.	2013	France
Bring It On - H&M - http://www2.hm.com/fr_fr/femme/catalogue-par-theme/8eb-bring-it-on.html	International campaign for the collection of used clothing for reuse or recycling. Textiles in good condition are offered to various organizations or to the second-hand market around the world. Non-reusable textiles are recycled or transformed into raw material and new H&M products.	2013	Sweden
Worn Wear-Patagonia- https://wornwear.patagonia.com/	An initiative discouraging the purchase of new products. Patagonia buys back clothes of its own brand from consumers and then washes, repairs and resells them on its website.	2013	United States

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Table 10 : Examples of initiatives involving peer-to-peer service sharing platforms

Initiative	Description	Date established	Country
Ici nos quartiers http://www.ici-nos-quartiers.org/	Establishes links between neighbours to encourage the sharing of resources and services.	—	Canada (QC)
Banque d'échanges communautaires de services http://www.becs.ca/	Members contribute their own expertise and offer their services (wide diversity).	—	Canada (QC)
Allo voisins https://www.allovoisins.com/	Platform encouraging mutual aid between neighbours for the sale or rental of a wide range of objects and services.	2013	France
Mutum https://www.mutum.com/	Free peer-to-peer lending and borrowing network. Users of the platform earn "mutum" points for every contribution.	2014	France
Stootie https://stootie.com	Online community and collaborative platform that allows users to request services in real time based on their geographic location.	2011	France
Lokéo https://www.lokeo.fr/	Long-term solutions for the rental of home appliances, TVs and Blu-ray DVDs, PCs, MACs and multimedia equipment (use, support and reuse).	2009	France
Fiverr https://www.fiverr.com	Peer-to-peer and professional service exchange platform.	—	United State Israel

APPENDIX 5: Methodology of the Canada-wide survey

Population and sample	Questionnaire	Survey dates	Weighting and representativeness
<p>The population studied is composed of residents living in all provinces of Canada, aged 18 years and over and fluent in French or English. From this population, a random sample of 2,202 individuals was drawn from an MBA Recherche web panel that is representative of the population.</p>	<p>The questionnaire was developed by researchers at OCR, and then revised by a committee made up of experts from the following organizations: Équiterre, RECYC-QUÉBEC, Option consommateurs and HOP. The average time to complete the questionnaire was 19 minutes.</p>	<p>The questionnaire was pre-tested with 50 respondents and the official data collection took place between January 10 and 18, 2018.</p>	<p>In order to reduce bias and make our sample of survey respondents representative of the target population, the raw data from the survey were weighted based on the actual distribution of the population by age, sex and region according to the data collected by the most recent Statistics Canada census. By way of illustration, a representative panel of the same size (n=2,202) would have a maximum margin of error of +/- 2.09%, at a 95% confidence level (19 times out of 20).</p>

APPENDIX 6:

Overview of HAE acquisitions by Canadians in the past two years

Respondents reported having purchased 12,742 HAEs over the previous two years. Of this number, 61% were home appliances and 39% were electronics.

Category of home appliances

Overall, 10% of the home appliances acquired over the past two years are vacuum cleaners and 9.67% are coffee/espresso makers. In total, 35% of respondents bought a vacuum cleaner in the past two years and 34% bought a coffee/espresso machine.

Ranking of the most frequently purchased small home appliances in the previous two years	Ranking of the most frequently purchased large home appliances in the previous two years	The most recent home appliance purchased by Canadians is either a coffee/espresso machine (15%) or a vacuum cleaner (15%):
<ol style="list-style-type: none"> 1. Vacuum cleaner (n=764¹¹): 10% 2. Coffee/espresso machine (n=756): 10% 3. Toaster (n=656): 8% 4. Microwave oven (n=593): 8% 5. Blender (n=482): 6% 6. Electric kettle (n=476): 6% 7. Slow cooker (n=351): 4% 8. Mixer (n=290): 4% 9. Rice cooker (n=253): 3% 10. Deep fryer (n=199): 3% 11. Food processor (n=189): 2% 12. Juicer (n=175): 2% 13. Steam cooker (n=121): 2% 14. Wine cellar (n=56): 1% 	<ol style="list-style-type: none"> 1. Refrigerator (n=451): 6% 2. Washing machine (n=427): 5% 3. Clothes dryer (n=356): 5% 4. Dishwasher (n=354): 5% 5. Stove (n=324): 4% 6. Freezer (n=236): 3% 7. Oven (n=182): 2% 8. Hood (n=139): 2% 	<ol style="list-style-type: none"> 1. Coffee/espresso machine: 15% 2. Vacuum cleaner: 15% 3. Microwave oven: 8% 4. Toaster: 8% 5. Electric kettle: 6% 6. Refrigerator: 6% 7. Blender: 6% 8. Dishwasher: 5% 9. Mixer: 4% 10. Slow cooker: 3% 11. Stove: 3% 12. Food processor: 3% 13. Freezer: 3% 14. Rice cooker: 2% 15. Deep fryer: 2% 16. Clothes dryer: 2% 17. Washing machine: 2% 18. Juicer: 1% 19. Wine cellar: 0.8% 20. Oven: 0.8% 21. Cooker: 0.6% 22. Hood: 0.3%

APPENDIX 6: (suite)

Overview of HAE acquisitions by Canadians in the past two years

Respondents reported having purchased 12,742 HAEs over the previous two years. Of this number, 61% were home appliances and 39% were electronics.

Category of electronic devices

Overall, 24% of the electronic devices acquired over the past two years are smartphones and 13% are laptops. In total, 54% of respondents bought a smartphone in the past two years and 28% bought a laptop computer.

Ranking of the most frequently purchased electronic devices in the previous two years	The most recent electronic device purchased by Canadians is a smart-phone (34%):
<ol style="list-style-type: none"> 1. Smart phone (n=1,182): 24% 2. Laptop (n=617): 13% 3. Earphones (n=539): 11% 4. Television (n=529): 11% 5. Tablet (n=412): 8% 6. Printer (n=393): 8% 7. Speaker/sound system (n=265): 5% 8. Game console (n=256): 5% 9. Desktop computer (n=248): 5% 10. Camera (n=177): 4% 11. Smart watch (n=146): 3% 12. Drone (n=83): 2% 13. GPS watch (n=51): 1% 14. Video camera Camcorder (n=33): 0.6% 	<ol style="list-style-type: none"> 1. Smart phone: 34% 2. Laptop: 13% 3. Television: 11% 4. Earphones: 10% 5. Tablet: 8% 6. Printer: 6% 7. Desktop computer: 5% 8. Game console: 4% 9. Speakers/sound system: 4% 10. Smart watch: 2% 11. Camera: 2% 12. Drone: 1% 13. GPS watch: 0.5%

- [1] Adapted from Durif, F., Kreziak, D., Prim-Allaz, I., & Robinot, E. (2014). L'obsolescence ou les raisons du remplacement d'un bien durable: proposition d'une échelle de mesure. *Congrès International de l'Association Française du Marketing*.
- [2] Kostecki, Michel (1998). "Marketing and the durable use of consumer goods: a framework for inquiry." *The Durable Use of Consumer Products*.
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- [4] Lyberg, K., & Bomboma, A. (2010). Planned Obsolescence The propensity to replace a cell phone due to physical versus technological obsolescence and the role of attitude functions.
- [5] Durif, F., Kreziak, D., Prim-Allaz, I., & Robinot, E. (2014). L'obsolescence ou les raisons du remplacement d'un bien durable: proposition d'une échelle de mesure. *Congrès International de l'Association Française du Marketing*.
- [6] Adapted from Durif, F., Kreziak, D., Prim-Allaz, I., & Robinot, E. (2014). L'obsolescence ou les raisons du remplacement d'un bien durable: proposition d'une échelle de mesure. *Congrès International de l'Association Française du Marketing*.
- [7] "Imprimantes : cas d'école d'obsolescence programmée ? Rapport d'enquête sur les enjeux et les solutions en matière d'imprimantes et de cartouches." Halte à l'obsolescence programmée (HOP), September 2017; <https://www.halteobsolescence.org/wp-content/uploads/2017/09/Rapport-HOP-final.pdf>.
- [8] "Rapport d'information déposé par la Mission d'information sur la gestion durable des matières premières minérales au nom de la Commission du développement durable et de l'aménagement du territoire et présenté par les députés M. Christophe Bouillon et M. Michel Havard," October 26, 2011.
- [8] "Obsolescence programmée, vos appareils condamnés à mort?" <http://www.consoglobe.com/obsolescence-programmee-appareils-cg>.
- [10] "L'obsolescence programmée, symbole de la société du gaspillage : le cas des produits électriques et électroniques." <http://www.amisdelaterre.be/spip.php?article939>.
- [11] (n=764): corresponds to the total number of vacuum cleaners purchased by all respondents over the previous two years.