

Design analysis results

Table S1 Design analysis results based on information available on corporate websites and reports, and interviews and articles in magazines

Design analysis results					Aesthetics		Functionality						Sustainability							Marketing and Communication									
					Shape	Colour	Performance compared to fossil-based equivalent			Durability compared to fossil-based equivalent			Feedstock generation			Recovery mentioned by company				Bio-based communicated in/on:									
							Similar to fossil-based equivalent product	Specific design for bio-based material	Similar to fossil-based equivalent product	Specific colours for bio-based material (potentially) less	Similar	Better	(potentially) less	Similar	Better	1st	2nd	3rd	Reuse	Repair	Recycle	Biodegrade	Incinerate	Recovery arrangements from company	Product	Product name	Description	Campaign	Packaging
Brand	Product name	Category	Bio-based plastic	#																									
Adidas	Futurecraft footprint	Clothing & Footwear	EVA, cellulose	1																									
Dansko	Kane	Clothing & Footwear	EVA	2																									
Scarpa	Mojito BIO	Clothing & Footwear	EVA	3																									
Vivobarefoot	Ultra III Bloom	Clothing & Footwear	EVA	4																									
On running	Cloudneo	Clothing & Footwear	PA	5																									
Vaude	Skarvan Biobased Pants	Clothing & Footwear	PA	6																									
Mizuno	Wave rider 24	Clothing & Footwear	TPE	7																									
Reebok	Cotton + Corn	Clothing & Footwear	TPE	8																									
Vaude	Skarvan shoes	Clothing & Footwear	TPE	9																									
Veja	Condor 2	Clothing & Footwear	TPE	10																									
Vivobarefoot	Primus Lite II bio	Clothing & Footwear	TPE	11																									
Tramontina	Jet chair	Furniture	PE	12																									
Kartell	Componibili Bio	Furniture	PHA	13																									
Alki Kuskoo	Bi chair	Furniture	PLA	14																									
Label Breed	1.42 wool & bio-based plastic carpet	Furniture	PLA	15																									
Zanotta	Sacco goes green	Furniture	PLA	16																									
Orthex	GastroMax Bio	Household appliances & utensils	PA	17																									
Ajaa	Naturbox	Household appliances & utensils	PE	18																									
BE O Lifestyle	BE O bottle	Household appliances & utensils	PE	19																									
Biodora	Fruchtpresse	Household appliances & utensils	PE	20																									
Biodora	Schneidbrett	Household appliances & utensils	PE	21																									
Light my Fire	Bowl'n Lid BIO	Household appliances & utensils	PE	22																									
Orthex	GastroMax cutting board	Household appliances & utensils	PE	23																									
Orthex	Pizza cutter BIO	Household appliances & utensils	PE	24																									
Retulp	Bio Bidon	Household appliances & utensils	PE	25																									
IKEA	TALRIKA	Household appliances & utensils	PLA	26																									
Zuperzozial	Time-Out Mug	Household appliances & utensils	PLA	27																									
Philips	Eco Consious Edition HD9365/10	Household appliances & utensils	PP	28																									
Light my Fire	Pack-up-Cup BIO	Household appliances & utensils	TPE	29																									
Fujitsu	Mouse M440 ECO	Information & communication	cellulose	30																									
BioSerie	BioCover Iphone 5 case	Information & communication	PLA	31																									
Lexon design	Maizy radio	Information & communication	PLA	32																									

*1 Adidas had a choose to give back program (Resale-as-a-Service) via the adidas Creator's Club app to be reused or resold

*2 Focus on CO2 footprint

*3 Focus on biodegradable

*4 Revivo program

*5 100% recyclable: complete shoe at ones. Recycle after +/- months/600 km

*6 Only available through subscription service, return when done with the product

*7 Repair service in place, unknown if pants will be recycled in their 'green shape' program

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*9 VEJA x Darwin, a test-hub for cleaning, repairing and recycling old sneakers. In shops in Paris, Bordeaux and New York.

*10 Revivo program

*11 'C-PLA is recyclable, but not in current disposal system.'

*12 The granulate is biodegradable, the end-product has no certificates yet

*13 Problem solving and repair tips per product on their website + spare parts available online

*14 Fujitsu has a WEEE-compliant take-back program in Europe + Trade-in Program

*15 Possible, but realize that current facilities are not handling these materials

*16 'A high proportion of plant material means that especially light-coloured products are more susceptible to discoloration and scratches

*17 Can send back to recycle in their production. Get 30% voucher

*18 'Never leave your sunglasses inside the car as the temperature or direct heat from sunlight can cause damage to the frame and the lenses.

*19 Made to last

*20 Repair service in place, unknown if pants will be recycled in their 'green shape' program

*21 Mattel PlayBack program in USA, Canada, France, Germany, UK: recycle materials and reuse in new products. Not possible: downcycle or energy recovery

*22 Reuse program currently only available in the US and Canada

*23 Mattel PlayBack program in USA, Canada, France, Germany, UK: recycle materials and reuse in new products. Not possible: downcycle or energy recovery

*24 Do not recommend reuse due to hygienic reasons (meant to be put in baby's mouth to relieve during teething'

*25 Unclear if Scarpa is using the 'Virtucycle Program' of material manufacturer Arkema

*26 Also in soil and water

*27 'We use granulate obtained from plants that are also native to our region