

BSI (prestaire)

Sas au capital de 39.000 euros
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ALD International (ci-après « ALD » ou les « utilisateurs » ou les « administrateurs »)

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1 Présentation

Finland needs a fiscal calculator on aldautomotive.fi, similar to:

<http://www.nffleet.fi/en/tax-value-calculator/>

This calculator is a tool that calculates taxes and benefits (*avantage en nature*) for a given vehicle.

It's a key module on the website for visitors and SEO.

2 Application

A CSV file with the structure below will be uploaded to the website every day. This file contains the information about every car model, that is needed to calculate taxes and benefits:

Vehicle Make;Vehicle Model;Vehicle Description;Vehicle Price;Vehicle Kind;Vehicle CO2;Fuel Type;Maximum Weight

NI;QAS20T095AVUH0A;NISSAN QASHQAI 2.0 T NISSAN QASHQAI 2.0 TEK AUTO ELEG PACK
;0000234580023458;V ;0179;B;01960

VO;S60200004A8BZ5K;VOLVO S60 T6 AWD Business aut
;0000444000044400;V;0161;B;02180

VO;S60200104A8BZ5K;VOLVO S60 T6 AWD Business R-Design aut
;0000471500047150;V;0161;B;02180

VO;S60200204A8BZ5K;VOLVO S60 T6 AWD Business Summum aut
;0000462000046200;V;0161;B;02180

(Same data read in Excel:)

	A	B	C	D	E	F	G	H
1	Vehicle Make	Vehicle Model	Vehicle Description	Vehicle Price	Vehicle Kind	Vehicle CO2	Fuel Type	Maximum Weight
2	NI	QAS20T095A	NISSAN QAS	2.3458E+11	V	179	B	1960
3	VO	S60200004A8	VOLVO S60	4.44E+11	V	161	B	2180
4	VO	S60200104A8	VOLVO S60	4.715E+11	V	161	B	2180
5	VO	S60200204A8	VOLVO S60	4.62E+11	V	161	B	2180
6	VO	S60200304A8	VOLVO S60	4.52E+11	V	161	B	2180
7	VO	S60200404A8	VOLVO S60	4.795E+11	V	161	B	2180

the page that we want to create will be similar to :

<http://www.nffleet.fi/en/tax-value-calculator/>

[Home](#) / [Leasing car driver](#) / [Tax value calculator](#)

Tax value calculator

Our Tax Value Calculator assists you in calculating the costs of a leasing car. Once you choose the make and model of the car, the calculator will calculate the car's suggested retail price, the unlimited and the limited car benefits. The unlimited car benefit is used when the employer pays all of the fees pertaining to the car. The limited car benefit is used when the employee pays at least the costs of fuel for the vehicle.

Taxable values in 2017

Make :

Mazda



Model :

MAZDA CX-3 2,0 120hv SKYA-G LuxPlus 6AT EO2



List price:	24250.00	€
Vehicle tax:	6618.23	€
Vehicle tax total:	6687.22	€
Total price:	32374.22	€
Unlimited benefit:	645	€
Limited benefit:	495	€
CO2-emission:	136	g/km

Factory-installed options, incl. VAT 24%.

Option 1:	250	€
Option 2:		€
Option 3:		€
Option 4:		€
Option 5:		€
Option 6:		€
Option 7:		€
Option 8:		€
Option 9:		€
Option 10:		€

Accessories, incl. VAT 24%. For example block heater and internal plug. Do not include winter tyres and expenses since they don't contribute to the benefit values.

Accessory 1:	100	€
Accessory 2:	999	€
Accessory 3:	88	€
Accessory 4:		€
Accessory 5:		€

Select a model

First select a maker, then a model

Add **options** prices (options are offered by the maker and are imported with the vehicle). The options are added for the CO2 tax calculation and the benefit value.

Add **accessories** (additional devices that are added in Finland). The accessories are NOT added for the CO2 tax calculation, but they are for the benefit value.

Vehicule tax

This tax is calculated without options and accessories.

1. Find the CO2 tax rate (R) in the table, for a given year (2018 or 2019) (annex)
 - a. Example : if CO2 is 10, then the tax is 3.6% for 2018 and 2.9% for 2019
 - b. Example : if CO2 200, then the tax is 35.1% for 2018 AND 2019
 - c. Note that over CO2 140, the rates are the same for 2018 and 2019
2. Calculate the CO2 tax : $(\text{Price} \times 0.945) - 250 \times (R) / (1 - R)$
 - a. Example : Alpha romeo Giulia 32295€, CO2 = 138 g/km
 - b. 138 g/km => CO2 tax = 23.1%
 - c. $((32295 \times 0.945) - 250) \times 23.1\% / (1 - 23.1\%) = 9092.20 \text{ € vehicle tax}$
3. Calculate the total tax, adding the tax for options and accessories (note that the Price base is still multiplied by 0.945 by there is no -250 rebate, so : Tax = $(\text{Price} \times 0.945) \times R / (1 - R)$)
 - a. Example : option 1000€ => tax = $(945\text{€} \times 23.1\% / (1 - 23.1\%)) = 283.86 \text{ €}$
 - b. Vehicle tax total for this example : 9373.07 €
 - c. Total price : 32295 € + 9 376.07 € = 42 671.07 €

Benefits

Accessories are taken into account for the benefit calculation, as well as options.

Unlimited benefit : if fuel is included and paid by the company

Limited benefit : if fuel is not paid by the company

The CO2 tax and the VAT are included in the base price to calculate the benefit.

“3400” and “850” are fixed discounts that are valid for all vehicles, for a given year:

3400 is a discount applied to the vehicle price

850 is a discount applied to the options and accessories

“105” and “255” are **UPLIFT1** and **UPLIFT2**. They are added to the final calculation for the limited and unlimited benefits.

The resulting value cannot be negative, so discounts apply if base prices greater than the discount.

We consider new vehicles (0-1 year old), so the benefit rate is a fixed 1.4

Exemple :

CALCULATION FOR TAXABLE COMPANY CAR BENEFIT					
Make and model:		BMW 3-SARJA	F30 Sedan 320d A xDrive Edit		
CO2:		112 g/km			
Registration plate:		XYZ-100			
Registration date:		02/05/2016			
User:		KAYTTAJA 107			
List price:			45700.80 €		
Deduction ./ MAX:			-3400.00 €		
Fiscal value:			42300.80 €		
Accessories:					
Perusväri - Alpine			384.58 €		
LÄMPÖPAKETTI			663.59 €		
Accessories total:			1048.17 €		
Deduction ./ MAX:			-850.00 €		
Fiscal value of accessories:			198.17 €		
Total fiscal value:			42498.97 €		
TAXABLE VALUES 2017			Age Group A		
Delivery date:		02/05/2016			
UNLIMITED BENEFIT	845	€			
LIMITED BENEFIT	695	€			
Taxable values are determined according to the list price of purchasing day.					
Taxable values may change if additional accessories are added during use of car.					
NF Fleet Oy					
Ohtolankatu 4, 01510 Vantaa					

The calculation goes like this :

1. List price – 3400 = Fiscal value for the vehicle
2. Accessories prices - 850 = Fiscal value for accessories
3. 1 + 2 = total fiscal value (TFV)
4. Unlimited benefit = [(TFV x 1.4%) ROUNDED BY 10 (ie 594 => 590)]+ 255
5. Limited benefit = = [(TFV x 1.4%) ROUNDED BY 10 (ie 594 => 590)]+ 105
6. Example :

- a. $(45700.80 - 3400) + (1048.17 - 850) = 42498.97 \text{ €}$
- b. $42498.97 \times 1.4\% = 594.97$, rounded to lower 10 = 590€
- i. $590 + 105 = 695$ limited benefit (105 is « Uplift1 »)
- ii. $590 + 255 = 845$ unlimited benefit (255 is « Uplift2 »)

3 Technical implementation

Security

All calculations are public data so for performance reason the code will be Javascript implemented on the client side. Keeping the calculation confidential would require round trips to the server, impacting negatively the performances.

Countries scope

The calculator is assumed for Finland only and will therefore be hardcoded according to their fiscal rules. Localization or customization are outside the scope of this project.

Duration

The calculator is assumed to be used in 2018 and 2019. Switching from 2018 to 2019 will be done by the developer team, upon request from the country.

Presentation

The calculator will appear as part of the aldautomotive.fi website. The texts above and below the calculator will therefore be editable, like any other page content. Translations will be provided by Finland.

The fiscal year should appear clearly on top of the calculator (2018 or 2019). It will not be selectable by the user.

Annexe 1 : calcul du taux de taxe 2018

PASSENGER CAR TAX RATES (AS OF 1.4.2018)		PASSENGER CAR TAX RATES (AS OF 1.4.2018)	
CO2	TAX-%	CO2	TAX-%
0	3.3	0	2.7
1	3.3	1	2.7
2	3.3	2	2.7
3	3.4	3	2.7
4	3.4	4	2.8
5	3.4	5	2.8
6	3.5	6	2.8
7	3.5	7	2.8
8	3.5	8	2.9
9	3.6	9	2.9
10	3.6	10	2.9
11	3.7	11	2.9
12	3.7	12	3.0
13	3.7	13	3.0
14	3.8	14	3.0
15	3.8	15	3.0
16	3.9	16	3.1
17	3.9	17	3.1
18	3.9	18	3.1
19	4.0	19	3.2
20	4.0	20	3.2
21	4.1	21	3.2
22	4.1	22	3.3
23	4.2	23	3.3
24	4.2	24	3.3
25	4.3	25	3.4
26	4.3	26	3.4
27	4.4	27	3.5
28	4.4	28	3.5
29	4.5	29	3.5
30	4.5	30	3.6
31	4.6	31	3.6
32	4.7	32	3.7
33	4.7	33	3.7
34	4.8	34	3.8
35	4.8	35	3.8
36	4.9	36	3.9
37	5.0	37	3.9
38	5.0	38	4.0
39	5.1	39	4.0
40	5.2	40	4.1
41	5.2	41	4.1
42	5.3	42	4.2
43	5.4	43	4.3
44	5.4	44	4.3
45	5.5	45	4.4
46	5.6	46	4.5
47	5.7	47	4.5
48	5.7	48	4.6
49	5.8	49	4.7

50	5.9	50	4.7
51	6.0	51	4.8
52	6.1	52	4.9
53	6.2	53	5.0
54	6.3	54	5.0
55	6.3	55	5.1
56	6.5	56	5.2
57	6.5	57	5.3
58	6.6	58	5.4
59	6.7	59	5.5
60	6.8	60	5.6
61	7.0	61	5.7
62	7.0	62	5.8
63	7.1	63	5.9
64	7.3	64	6.0
65	7.4	65	6.1
66	7.5	66	6.2
67	7.6	67	6.3
68	7.7	68	6.4
69	7.8	69	6.5
70	8.0	70	6.6
71	8.1	71	6.8
72	8.2	72	6.9
73	8.4	73	7.0
74	8.5	74	7.1
75	8.6	75	7.3
76	8.8	76	7.4
77	8.9	77	7.6
78	9.0	78	7.7
79	9.2	79	7.8
80	9.3	80	8.0
81	9.5	81	8.1
82	9.6	82	8.3
83	9.8	83	8.5
84	10.0	84	8.6
85	10.1	85	8.8
86	10.3	86	8.9
87	10.4	87	9.1
88	10.6	88	9.3
89	10.8	89	9.5
90	11.0	90	9.7
91	11.2	91	9.8
92	11.3	92	10.0
93	11.5	93	10.2
94	11.7	94	10.4
95	11.9	95	10.6
96	12.1	96	10.8
97	12.3	97	11.0
98	12.5	98	11.3
99	12.7	99	11.5
100	12.9	100	11.7
101	13.1	101	11.9
102	13.3	102	12.1
103	13.5	103	12.4
104	13.8	104	12.6
105	14.0	105	12.9
106	14.2	106	13.1
107	14.4	107	13.3

108	14.7	108	13.6
109	14.9	109	13.9
110	15.2	110	14.1
111	15.4	111	14.4
112	15.6	112	14.6
113	15.9	113	14.9
114	16.1	114	15.2
115	16.4	115	15.5
116	16.6	116	15.8
117	16.9	117	16.0
118	17.2	118	16.3
119	17.4	119	16.6
120	17.7	120	16.9
121	18.0	121	17.2
122	18.2	122	17.5
123	18.5	123	17.8
124	18.8	124	18.1
125	19.1	125	18.5
126	19.4	126	18.8
127	19.7	127	19.1
128	19.9	128	19.4
129	20.2	129	19.7
130	20.5	130	20.1
131	20.8	131	20.4
132	21.1	132	20.7
133	21.4	133	21.1
134	21.7	134	21.4
135	22.0	135	21.7
136	22.3	136	22.1
137	22.6	137	22.4
138	22.9	138	22.8
139	23.3	139	23.1
140	23.5	140	23.5
141	24.0	141	24.0
142	24.2	142	24.2
143	24.4	143	24.4
144	24.6	144	24.6
145	24.8	145	24.8
146	25.0	146	25.0
147	25.2	147	25.2
148	25.4	148	25.4
149	25.6	149	25.6
150	25.8	150	25.8
151	26.0	151	26.0
152	26.2	152	26.2
153	26.4	153	26.4
154	26.6	154	26.6
155	26.8	155	26.8
156	27.0	156	27.0
157	27.1	157	27.1
158	27.3	158	27.3
159	27.5	159	27.5
160	27.7	160	27.7
161	27.9	161	27.9
162	28.1	162	28.1
163	28.3	163	28.3
164	28.5	164	28.5
165	28.7	165	28.7

166	28.9	166	28.9
167	29.1	167	29.1
168	29.3	168	29.3
169	29.5	169	29.5
170	29.7	170	29.7
171	29.9	171	29.9
172	30.0	172	30.0
173	30.2	173	30.2
174	30.4	174	30.4
175	30.6	175	30.6
176	30.8	176	30.8
177	31.0	177	31.0
178	31.2	178	31.2
179	31.4	179	31.4
180	31.6	180	31.6
181	31.7	181	31.7
182	31.9	182	31.9
183	32.1	183	32.1
184	32.3	184	32.3
185	32.5	185	32.5
186	32.7	186	32.7
187	32.8	187	32.8
188	33.0	188	33.0
189	33.2	189	33.2
190	33.4	190	33.4
191	33.6	191	33.6
192	33.7	192	33.7
193	33.9	193	33.9
194	34.1	194	34.1
195	34.3	195	34.3
196	34.4	196	34.4
197	34.6	197	34.6
198	34.8	198	34.8
199	35.0	199	35.0
200	35.1	200	35.1
201	35.3	201	35.3
202	35.5	202	35.5
203	35.7	203	35.7
204	35.8	204	35.8
205	36.0	205	36.0
206	36.2	206	36.2
207	36.3	207	36.3
208	36.5	208	36.5
209	36.6	209	36.6
210	36.8	210	36.8
211	37.0	211	37.0
212	37.1	212	37.1
213	37.3	213	37.3
214	37.5	214	37.5
215	37.6	215	37.6
216	37.8	216	37.8
217	37.9	217	37.9
218	38.1	218	38.1
219	38.2	219	38.2
220	38.4	220	38.4
221	38.5	221	38.5
222	38.7	222	38.7
223	38.8	223	38.8

224	39.0	224	39.0
225	39.1	225	39.1
226	39.3	226	39.3
227	39.4	227	39.4
228	39.6	228	39.6
229	39.7	229	39.7
230	39.8	230	39.8
231	40.0	231	40.0
232	40.1	232	40.1
233	40.3	233	40.3
234	40.4	234	40.4
235	40.5	235	40.5
236	40.7	236	40.7
237	40.8	237	40.8
238	40.9	238	40.9
239	41.1	239	41.1
240	41.2	240	41.2
241	41.3	241	41.3
242	41.5	242	41.5
243	41.6	243	41.6
244	41.7	244	41.7
245	41.8	245	41.8
246	42.0	246	42.0
247	42.1	247	42.1
248	42.2	248	42.2
249	42.3	249	42.3
250	42.4	250	42.4
251	42.6	251	42.6
252	42.7	252	42.7
253	42.8	253	42.8
254	42.9	254	42.9
255	43.0	255	43.0
256	43.1	256	43.1
257	43.2	257	43.2
258	43.4	258	43.4
259	43.5	259	43.5
260	43.6	260	43.6
261	43.7	261	43.7
262	43.8	262	43.8
263	43.9	263	43.9
264	44.0	264	44.0
265	44.1	265	44.1
266	44.2	266	44.2
267	44.3	267	44.3
268	44.4	268	44.4
269	44.5	269	44.5
270	44.6	270	44.6
271	44.7	271	44.7
272	44.8	272	44.8
273	44.9	273	44.9
274	45.0	274	45.0
275	45.1	275	45.1
276	45.2	276	45.2
277	45.2	277	45.2
278	45.3	278	45.3
279	45.4	279	45.4
280	45.5	280	45.5
281	45.6	281	45.6

282	45.7	282	45.7
283	45.8	283	45.8
284	45.8	284	45.8
285	45.9	285	45.9
286	46.0	286	46.0
287	46.1	287	46.1
288	46.2	288	46.2
289	46.3	289	46.3
290	46.3	290	46.3
291	46.4	291	46.4
292	46.5	292	46.5
293	46.6	293	46.6
294	46.6	294	46.6
295	46.7	295	46.7
296	46.8	296	46.8
297	46.9	297	46.9
298	46.9	298	46.9
299	47.0	299	47.0
300	47.1	300	47.1
301	47.1	301	47.1
302	47.2	302	47.2
303	47.3	303	47.3
304	47.3	304	47.3
305	47.4	305	47.4
306	47.5	306	47.5
307	47.5	307	47.5
308	47.6	308	47.6
309	47.6	309	47.6
310	47.7	310	47.7
311	47.8	311	47.8
312	47.8	312	47.8
313	47.9	313	47.9
314	47.9	314	47.9
315	48.0	315	48.0
316	48.1	316	48.1
317	48.1	317	48.1
318	48.2	318	48.2
319	48.2	319	48.2
320	48.3	320	48.3
321	48.3	321	48.3
322	48.4	322	48.4
323	48.4	323	48.4
324	48.5	324	48.5
325	48.5	325	48.5
326	48.6	326	48.6
327	48.6	327	48.6
328	48.7	328	48.7
329	48.7	329	48.7
330	48.8	330	48.8
331	48.8	331	48.8
332	48.9	332	48.9
333	48.9	333	48.9
334	49.0	334	49.0
335	49.0	335	49.0
336	49.1	336	49.1
337	49.1	337	49.1
338	49.1	338	49.1
339	49.2	339	49.2

340	49.2	340	49.2
341	49.3	341	49.3
342	49.3	342	49.3
343	49.3	343	49.3
344	49.4	344	49.4
345	49.4	345	49.4
346	49.5	346	49.5
347	49.5	347	49.5
348	49.5	348	49.5
349	49.6	349	49.6
350	49.6	350	49.6
351	49.7	351	49.7
352	49.7	352	49.7
353	49.7	353	49.7
354	49.8	354	49.8
355	49.8	355	49.8
356	49.8	356	49.8
357	49.9	357	49.9
358	49.9	358	49.9
359	49.9	359	49.9
>=360	50.0	>=360	50.0