1
2 TO:
3 National Transport Commission
4 Level 15/628 Bourke Street
5 Melbourne VIC 3000
6 Australia
7
8
9 **National Transport Commission / Discussion Paper / Regulatory options for automated**
10 **vehicles / May 2016**
11
12
13 First of all, a lot of thanks to National Transport Commission for organising this important
14 consultation.
15
16 This opinion represents an opinion of an individual citizen, not any legal entity.
17
18 This opinion does not contain:
19   –   any business secrets
20   –   any trade secrets
21   –   any confidential information.
22
23 This opinion is public.
24
25 National Transport Commission can add the PDF file of this opinion to a relevant web page.
26
27
28 Annex 1 holds information about previous opinions related to information technology.
29 Annex 2 holds information about disclaimers and copyright.
30
31 Best Regards,
32
33
34
35 Jukka S. Rannila
36 citizen of Finland
37
38 signed electronically
39
40
41
42 [Continues on the next page]
43

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44
45 **Some personal observations**
46
47 Personally I have not been too enthusiastic about automated vehicles (road) since actually there are
48 several risks related to all automation.
49
50 However the behaviour of people has changed drastically based on the usage of mobile devices. In
51 reality people are using different mobile devices when actually driving manually controlled vehicles
52 (road). This behaviour means a lot of new risks for transport systems.
53
54   **Opinion: Based on the risks of mobile devices I have to conclude that there should be**
55   **at least some new warning mechanisms when driving vehicles (road).**
56
57 **This issue should be assessed carefully – automated vehicles (road)**
58
59 On the (Regulatory options for automated vehicles) discussion paper (127 pages) there is some text
60 about the European Union project about automated vehicles. The mentioned document can be found
61 on the following web pages.
62
63   Intelligent transport systems - Innovating for the transport of the future
64   http://ec.europa.eu/transport/themes/its/index_en.htm
65
66   Connected and automated driving (C-ITS)
67   http://ec.europa.eu/transport/themes/its/c-its_en.htm
68
69 The C-ITS Final report (January 2016) contains 140 pages and then there are 33 electronic annexes.
70 I guess that it can take some time before the European Commission (EU) can make some legislative
71 proposals based on analysis of C-ITS Final report and electronic annexes.
72
73   European Commission / Directorate General for Mobility and Transport/ Public
74   consultations
75   http://ec.europa.eu/transport/media/consultations/index_en.htm
76
77 I checked the consultation web page and at the moment there was not a consultation about
78 automated vehicles on the European Union level.
79
80 **Australian project / Regulatory options for automated vehicles**
81
82 Australian project about regulatory options for automated vehicles (discussion paper) raises several
83 important questions. The web page was at the moment on the following address.
84
85   http://www.ntc.gov.au/current-projects/preparing-for-more-automated-road-and-rail-
86   vehicles/
87
88 **Standardisation efforts**

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89
90 There are different standards setting organisations on the information technology field. One list [1] of
91 these standards setting organisations is provided by ConsortiumInfo.org. More specific list [2] of
92 automotive industry standards setting organisation is also provided by ConsortiumInfo.org
93
94 Like the lists (ConsortiumInfo.org) indicates there are some standards setting organisations for
95 standardising some aspects of vehicles (road). Naturally the relevance of different standards setting
96 organisations vary.
97
98 One warning can be said about standards setting organisations. All standards setting organisations
99 are not successes based on several factors and there can may irrelevant standards setting
100 organisations. Market situation on different vehicle markets varies a lot based on different factors.
101
102 Here we can note some problems:
103
104   •   some systems are based on **de-facto** standards
105   •   some systems are based on **de-jure** standards
106   •   there can be confrontations between **de-facto** and **de-jure** standards
107   •   there can be a monopoly situation in some domain
108   •   some standards may inhibit possible actions of some stakeholders
109   •   there can be a standard war on some domains
110   •   standards have different life-cycles
111   •   systems have different life-cycles
112   •   there can be mismatches between different life-cycles
113   •   there can be failed standards
114   •   there can be deprecated standards.
115
116 It is quite normal situation in the information technology field that there are competing standards
117 for some application field. Therefore there are all the time ongoing "standards wars" or "format
118 wars". The information technology standards tend to be interrelated and one "standards war" or
119 "format war" can lead to another similar situation.
120
121 I have advocated open standards even though in some cases open standards are not de facto
122 standards. In practice public sector has very important role, when some standards are competing in
123 the market place. Because public sector has a considerable power when buying/developing
124 information systems and therefore public sector can sometimes direct markets to certain standards.
125 Therefore there should be serious vigilance when assessing different standards and "standards" in
126 some application fields.
127
128 **Competion between standards and software ecosystems**
129
130 Here we can note following organisations:
131

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1   Standard Setting Organizations and Standards List, www.consortiuminfo.org/links/linksall.php
2   http://www.consortiuminfo.org/links/linkscats.php?ID=59, Automotive – standards setting organisations

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132   •   GENIVI Alliance [3] [4]
133   •   SAE International [5] [6]
134
135 Interestingly some companies are members of both communities. GENIVI Alliance is concentrating
136 on In-Vehicle Infotainment (IVI). SAE International is already mentioned on the discussion paper.
137
138 Here we can note some organisations concentrating on some software issues for automated vehicles
139 (road):
140
141   •   Android Auto [7] [8]
142   •   Automotive Grade Linux [9]
143   •   Open Automotive Alliance [10] [11]
144   •   Windows Embedded Automotive 7 [12] [13]
145
146 Personally I have advocated open standards and open software for different domains which are
147 changing based on digitalisation (of everything).
148
149 **The reality with different timelines?**
150
151
152 [Continues on the next page]
153

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3   http://www.genivi.org/genivi-members
4   https://en.wikipedia.org/wiki/GENIVI_Alliance
5   http://www.sae.org
6   https://en.wikipedia.org/wiki/SAE_International
7   https://www.android.com/auto/
8   https://en.wikipedia.org/wiki/Android_Auto
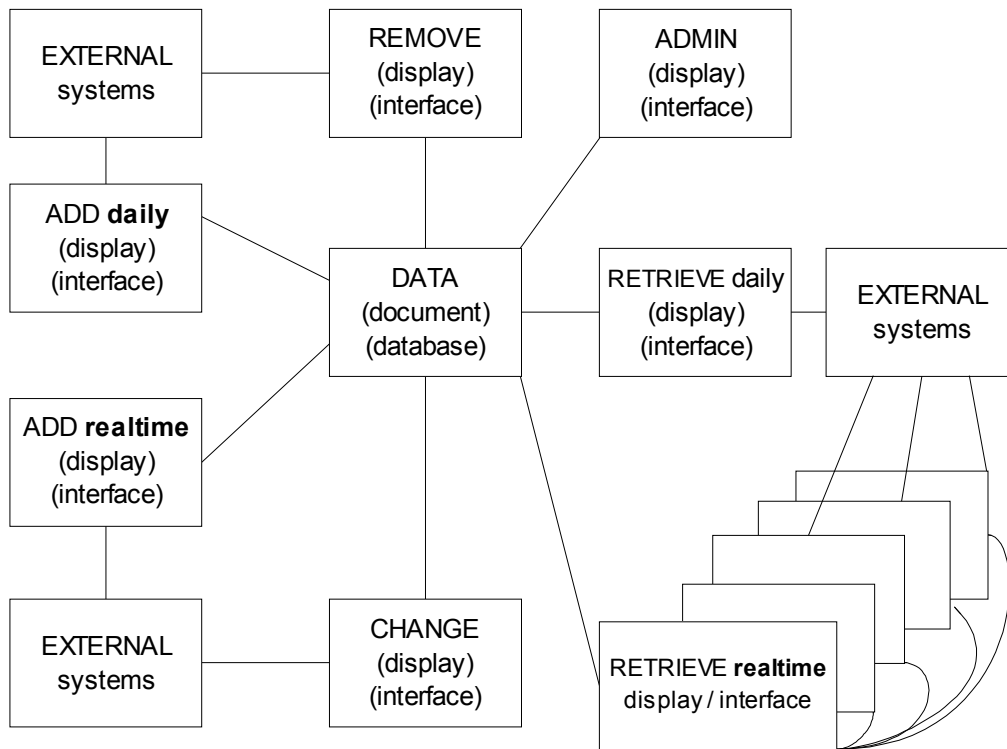9   https://www.automotivelinux.org
10   www.openautoalliance.net/
11   https://en.wikipedia.org/wiki/Open_Automotive_Alliance
12   https://www.microsoft.com/windowsembedded/en-us/windows-embedded-automotive-7.aspx
13   https://en.wikipedia.org/wiki/Windows_Embedded_Automotive

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154
155
156 Here we can note that automated vehicle (roads) will be a combination of different timelines in
157 information systems. There are different combinations of static data and realtime data.
158
159 **Question 1a: Do you agree that automated vehicle trials should be supported with national**
160 **guidelines? If not, why?**
161
162　　　**Proposal: There could be an analysis of international guidelines.**
163
164　　　**Proposal: Widely accepted international guidelines could be used – if that is possible.**
165
166 **Question 2a: Do you agree that issues of control and proper control should be addressed**
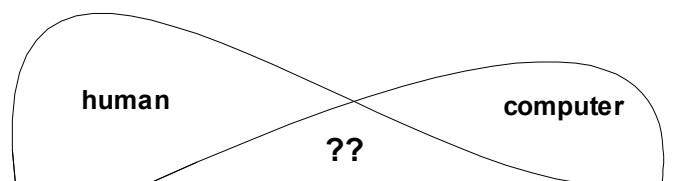167 **through national enforcement guidelines? If not, why?**
168
169 There are some combinations for information systems:
170　　　• 　　tasks suitable to computers
171　　　• 　　tasks suitable to humans.
172

173

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174
175 The greatest problem will be tasks which can be done by humans or computers. In this area (**??**)
176 there can be wrong solutions and humans may not like tasks which are planned for them.
177
178   **Proposal: There could be more systematic effort to divide different tasks to smaller**
179   **details.**
180
181   **Proposal: After understanding (smaller) details there could be separation to two classes**
182   **– human tasks and computer tasks.**
183
184 After this analysis of detailed tasks it could be easier to divide human tasks and computer tasks. The
185 problem is still naturally the third class when there are possibilities for different combinations
186 between computer and humans.
187
188 I propose different (technical) tests with automated vehicles (road) to determine division of labour
189 between humans and computers.
190
191   **Proposal: After different (technical) tests with automated vehicle (roads) control and**
192   **proper control could be assessed with specific details.**
193
194 **Question 3a: Do you agree that governments should oversee the safe operation of automated**
195 **vehicles though the development of a national safety assurance framework? If not, why?**
196
197 There are differences between horizontal and vertical standards. A simple example is naturally
198 email solutions. There are several vertical standards when creating technically email solutions. Then
199 there are horizontal standards which enable sending messages between technically different email
200 solutions.
201
202   **Proposal: There could be assessment of vertical and horizontal standards.**
203
204   **Proposal: Using horizontal standards could be favoured when creating different**
205   **information systems.**
206
207 Horizontal standards enables technological solutions which can work together. Horizontal standards
208 hides different complexities in information systems.
209
210   **Opinion: The number of redundant standardisation efforts should be minimal.**
211
212   **Proposal: There could be separation of horizontal standards and vertical standards.**
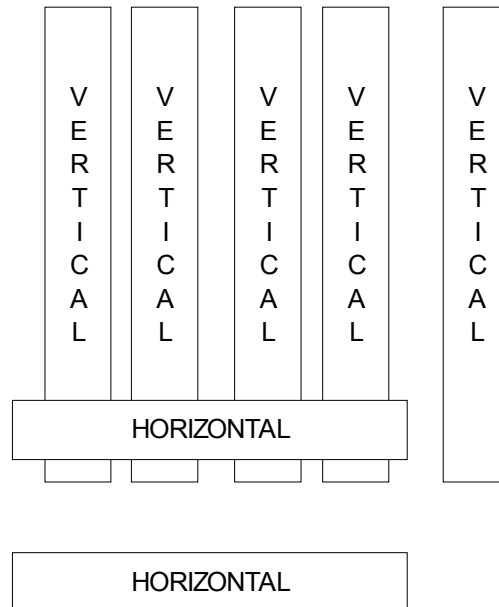213
214   **Proposal: There could be different standardisation efforts to horizontal standards and**
215   **vertical standards.**
216
217 Personally I have advocated using different horizontal standards. For example email standards
218 (horizontal) are implemented with very different technologies (vertical).

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219

220
221
222 **Proposal: Governments should especially concentrate on horizontal standards.**
223
224 **Proposal: Some government agencies could apply for memberships of different**
225 **standard setting organisations which develop especially horizontal standards.**
226
227 **Question 6: Do you agree that governments should continue to rely on vehicle standards**
228 **exemptions at this point in time? If not, why?**
229
230 **Proposal: Like said before governments should especially support development of**
231 **horizontal standards.**
232
233 **Question 7: Do you agree with the development of industry-led standards to address**
234 **modification of automated vehicles? If not, why?**
235
236 **Proposal: Government agencies should not be passive by-standers when different**
237 **horizontal standards are developed.**
238
239 **Proposal: Government agencies could financially support development of horizontal**
240 **standards.**
241
242 **Question 12: Do you agree with the staged approach to reform and the suggested timeframes**
243 **to address the identified issues? If not, why?**
244
245 **Proposal: Proposed staged approach can be supported.**
246

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247
248 **An example for cooperation: Web feeds (RSS and Atom)**
249

250
251
252 I have advocated usage of web feeds on several previous opinion documents. Actually there are two
253 standards for web feeds: RSS [14] [15] and Atom [16] [17] [18].
254
255   **Proposal: Web feeds could be advocated when developing different informations**
256   **systems.**
257
258   **Proposal: Web feeds (RSS and/or Atom) should be used extensively for providing (real-**
259   **time) information for different stakeholder(s) (communities).**
260
261   **Proposal: There can be different web feeds (RSS and/or Atom) for different**
262   **stakeholder(s) – having just one web feed (RSS and/or Atom) may not be a feasible**
263   **solution.**
264
265   **Proposal: Several web feeds (RSS and/or Atom) can be based on different viewpoints.**
266
267 It can be easier to create web feeds in different information systems since web feeds enable
268 connections without direct system-to-system connections.
269
270 It can be noted, that different back-office systems (with a wide variety of different technologies) can
271 implement RSS standards, and these RSS feeds can be used in the front-office systems. With this
272 kind solutions front-office systems dont need direct system-to-system communications with back-
273 office systems.
274
275
276 **Good luck!!!**
277
278 This opinion is quite limited. Hopefully there are other constructive ideas presented in other
279 opinions. This remains to be seen.
280
281
282 [Continues on the next page]

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14 http://www.rssboard.org/rss-specification, RSS 2.0 Specification
15 https://en.wikipedia.org/wiki/RSS, Wikipedia / RSS
16 https://en.wikipedia.org/wiki/Atom_(standard), Wikipedia / Atom (standard)
17 https://tools.ietf.org/html/rfc4287, The Atom Syndication Format
18 https://tools.ietf.org/html/rfc5023, The Atom Publishing Protocol

283
284
285
286   **ANNEX 1**
287
288
289   I have constructed different opinions about different issues, and on the following web page
290   are all written (PDF files) opinions:
291   http://www.jukkarannila.fi/lausunnot.html
292
293
294   **I have constructed specifically opinions related to information systems – both in English and**
295   **in Finnish.**
296
297   **Here is the list of opinions related to information systems.**
298
299   EN: Opinion 8: European Interoperability Framework, version 2, draft
300   http://www.jukkarannila.fi/lausunnot.html#nro_8
301
302   EN: Opinion 9: CAMSS: Common Assessment Method for Standards and Specifications, CAMSS
303   proposal for comments
304   http://www.jukkarannila.fi/lausunnot.html#nro_9
305
306   EN:Opinion 13: Final Committee Draft ISO/IEC FCD3 19763-2
307   http://www.jukkarannila.fi/lausunnot.html#nro_13
308
309   EN: Opinion 14: SFS discussion paper / SFS:n keskusteluasiakirja
310   http://www.jukkarannila.fi/lausunnot.html#nro_14
311
312   EN: Opinion 17: Opinion to Antitrust Case No. COMP/C-3/39.530
313   http://www.jukkarannila.fi/lausunnot.html#nro_17
314
315   EN: Opinion 18: Opinion Related to the Public Undertaking by Microsoft
316   http://www.jukkarannila.fi/lausunnot.html#nro_18
317
318   EN: Opinion 19: Official Acknowledgement by the Commission
319   http://www.jukkarannila.fi/lausunnot.html#nro_19
320
321   EN: Opinion 20: SECOND Opinion Related to the Public Undertaking by Microsoft
322   http://www.jukkarannila.fi/lausunnot.html#nro_20
323
324   EN: Opinion 21: Opinion about the European Interoperability Strategy proposal
325   http://www.jukkarannila.fi/lausunnot.html#nro_21
326
327

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328 EN: Opinion 23: Public consultation on the review of the European Standardisation System
329 http://www.jukkarannila.fi/lausunnot.html#nro_23
330
331 EN: Opinion 24: ISO/IEC JTC 1 / SC 34 / WGs 1, 4 and 5 in Helsinki 14-17 June 2010
332 http://www.jukkarannila.fi/lausunnot.html#nro_24
333
334 FI: Lausunto 29: Avoimen demokratian avoimen datan avaamisen detaljit (ADADAD)
335 http://www.jukkarannila.fi/lausunnot.html#nro_29
336
337 EN: Opinion 30: Internet Filtering
338 http://www.jukkarannila.fi/lausunnot.html#nro_30
339
340 FI: Lausunto 31: Terveydenhuollon tietotekniikasta
341 http://www.jukkarannila.fi/lausunnot.html#nro_31
342
343 EN: Opinion 32: COMP/C-3/39.692/IBM - Maintenance services
344 http://www.jukkarannila.fi/lausunnot.html#nro_32
345
346 FI: Lausunto 33: Julkishallinnon tietoluovutusten periaatteet ja käytännöt
347 http://www.jukkarannila.fi/lausunnot.html#nro_33
348
349 EN: Opinion 34: REMIT Registration Format
350 http://www.jukkarannila.fi/lausunnot.html#nro_34
351
352 EN: Opinion 37: CASE COMP/39.654 - Reuters instrument codes
353 http://www.jukkarannila.fi/lausunnot.html#nro_37
354
355 FI: Lausunto 38: SADe-ohjelman avoimen lähdekoodin toimintamallin luonnos
356 http://www.jukkarannila.fi/lausunnot.html#nro_38
357
358 EN: Opinion 39: Registry options to facilitate linking of emissions trading systems
359 http://www.jukkarannila.fi/lausunnot.html#nro_39
360
361 EN: Opinion 41: AT.39398: observations on the proposed commitments
362 http://www.jukkarannila.fi/lausunnot.html#nro_41
363
364 EN: Opinion 43: Publication of extracts of the European register of market participants
365 http://www.jukkarannila.fi/lausunnot.html#nro_43
366
367 EN: Opinion 45: About ICT standardisation
368 http://www.jukkarannila.fi/lausunnot.html#nro_45
369
370 EN: Opinion 46: Review of the EU copyright rules
371 http://www.jukkarannila.fi/lausunnot.html#nro_46
372

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373 EN: Opinion 47: Sharing or collaborating with government documents
374 http://www.jukkarannila.fi/lausunnot.html#nro_47
375
376 FI: Lausunto 49: JSH 166 -suosituksen päivitys
377 http://www.jukkarannila.fi/lausunnot.html#nro_49
378
379 EN: Opinion 52: Trusted Cloud Europe Survey
380 http://www.jukkarannila.fi/lausunnot.html#nro_52
381
382 EN: Opinion 53: Trade Reporting User Manual (TRUM) (Draft)
383 http://www.jukkarannila.fi/lausunnot.html#nro_53
384
385 EN: Opinion 54: Government Content Management System
386 http://www.jukkarannila.fi/lausunnot.html#nro_54
387
388 EN: Opinion 55: European Energy Regulation
389 http://www.jukkarannila.fi/lausunnot.html#nro_55
390
391 EN: Opinion 56: National Identity Proofing Guidelines
392 http://www.jukkarannila.fi/lausunnot.html#nro_56
393
394 FI: Lausunto 58: Puoluekokousaloitteet / 2010 ja 2014
395 http://www.jukkarannila.fi/lausunnot.html#nro_58
396
397 EN: Opinion 59: Green paper on mobile Health
398 http://www.jukkarannila.fi/lausunnot.html#nro_59
399
400 EN: Opinion 60: Cross-border inheritance tax problems within the EU
401 http://www.jukkarannila.fi/lausunnot.html#nro_60
402
403 EN: Opinion 61: European Register of Products Containing Nanomaterials
404 http://www.jukkarannila.fi/lausunnot.html#nro_61
405
406 FI: Lausunto 65: Lausuntopyyntö nettiäänestystyöryhmän väliraportista
407 http://www.jukkarannila.fi/lausunnot.html#nro_65
408
409 EN: Opinion 66: Net Innovation for the Work Programme 2016-2017
410 http://www.jukkarannila.fi/lausunnot.html#nro_66
411
412 FI: Lausunto 67: Valtioneuvoston hanketiedon esiselvityksestä
413 http://www.jukkarannila.fi/lausunnot.html#nro_67
414
415 EN: Opinion 68: European Network Code Stakeholder Committees
416 http://www.jukkarannila.fi/lausunnot.html#nro_68
417

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418   FI: Lausunto 69: Hallituksen esitys (luonnos 16.4.2015) vieraslajeista
419   http://www.jukkarannila.fi/lausunnot.html#nro_69
420
421   EN: Opinion 70: Providing better APIs in New Zealand
422   http://www.jukkarannila.fi/lausunnot.html#nro_70
423
424   EN: Opinion 71: Common Schema for the Disclosure of Inside Information
425   http://www.jukkarannila.fi/lausunnot.html#nro_71
426
427   EN: Opinion 72: Queensland biofuel mandate
428   http://www.jukkarannila.fi/lausunnot.html#nro_72
429
430   EN: Opinion 73: Financial / Conceptual Frameworks
431   http://www.jukkarannila.fi/lausunnot.html#nro_73
432
433   EN: Opinion 74: Enabling the Internet of Things
434   http://www.jukkarannila.fi/lausunnot.html#nro_74
435
436   EN: Opinion 78: Consumer Complaints Register (NSW)
437   http://www.jukkarannila.fi/lausunnot.html#nro_78
438
439   EN: Opinion 79: PCEHR (Information Commissioner Enforcement Powers) Guidelines 2015
440   http://www.jukkarannila.fi/lausunnot.html#nro_79
441
442   EN: Opinion 80: Mandatory Transparency Register
443   http://www.jukkarannila.fi/lausunnot.html#nro_80
444
445   EN: Opinion 81: Records and Information Management Standard
446   http://www.jukkarannila.fi/lausunnot.html#nro_81
447
448   EN: Opinion 84: Revision of the European Interoperability Framework
449   http://www.jukkarannila.fi/lausunnot.html#nro_84
450
451
452
453   I have constructed different opinions about different issues, and on the following web page
454   are all written (PDF files) opinions:
455   http://www.jukkarannila.fi/lausunnot.html
456
457
458
459   [Continues on the next page]
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461
462   **ANNEX 2**
463   DISCLAIMERS
464
465   Legal disclaimer:
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470   actor making those actions.
471
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476
477   These opinions are not meant to be extreme-right, moderate-right, extreme-centre [19], moderate-centre, extreme-left or
478   moderate-left. They are only opinions of an individual whose overall thinking might or might not contain elements of
479   different sources. These opinions do not reflect past, current or future political situation in the Finnish, European or
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481
482   These opinions are not meant to rally for a candidacy in any public election in any level.
483
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497

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19 Based on the Finnish three-party system there is a phenomenon called extreme-centre in Finland. The 2011
    parliamentary elections in Finland challenged the three-party system, since three "old" parties were not traditionally
    as the three largest parties. On 2015 this "new" party is part of the current Finnish Government. We all must be
    interested about this new development in Finland.

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