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Food Reformulation Task Force: DRAFT Reformulation Targets for Commercially Available Complementary Foods



DRAFT Reformulation Targets for Commercially Available Complementary Foods

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Glossary

Term	Text
CACFs	Commercially available complementary foods
EC	European Commission
EU	European Union
FRT	Food Reformulation Task Force
FSAI	Food Safety Authority of Ireland
IUNA	Irish University Nutrition Alliance
NPNS	National Preschool Nutrition Survey
NPPM	Nutrient and Promotion Profile Model
OHID	Office for Health Improvements and Disparities
SD	Standard deviation
WHO	World Health Organisation

2 Definitions

3

4 The following definitions are used:

5 **Commercially available complementary foods (CACFs)**

6 A commercially available complementary food, in the context of this guidance, means a
7 manufactured food which is marketed as suitable for feeding infants (under 12 months) and young
8 children (12 – 36 months). Vitamin and mineral supplements targeted to infants and young children
9 and infant and young child formulas are not CACFs.

10

11 **Added sugar**

12 Added sugars are defined by the European Food Safety Authority as “*mono- and disaccharides*
13 *added to foods as ingredients during processing*”. This includes free sugars which are sugars
14 naturally present in honey, syrups, fruit and vegetable juices and fruit and vegetable juice
15 concentrates / powdered fruit and vegetable juice (EFSA Panel on Nutrition et al., 2022).

16

17 **Total sugar**

18 Total sugars means all monosaccharides and disaccharides present in food but excludes polyols.

19 **1. Introduction**

20 **1.1 Purpose**

21

22 This document outlines draft reformulation targets for commercially available complementary foods
23 (CACFs), and the rationale and methodology behind their development. The reformulation targets
24 are published for consultation to provide stakeholders with an opportunity to give feedback on the
25 draft targets.

26

27 **1.2 Background**

28

29 *The Obesity Policy and Action Plan – A Healthy Weight for Ireland* published in 2016, outlines ten
30 steps to be taken within a 10-year time frame to prevent overweight and obesity in Ireland
31 (Department of Health, 2016). Step three of the plan relates to food reformulation and aims to ‘*secure
32 appropriate support from the commercial sector to play its part in obesity prevention and agree food
33 industry reformulation targets and review progress*’. To achieve this a Food Reformulation Subgroup
34 of the Obesity Policy Implementation and Oversight Group developed *A Roadmap for Food Product
35 Reformulation in Ireland* which was published in 2021 (Department of Health, 2021).

36 To deliver the Roadmap, the Food Reformulation Task Force, a strategic partnership between
37 Healthy Ireland and the Food Safety Authority of Ireland (FSAI), was established in 2022. The Food
38 Reformulation Task Force will implement the Roadmap and monitor progress made in reducing
39 energy (calories), saturated fat, sugar, and salt in priority food categories.

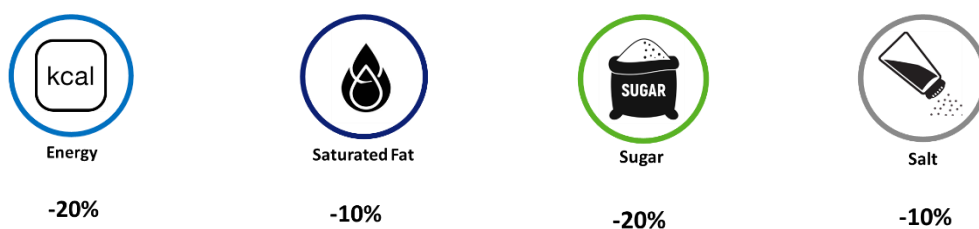
40

41 **1.3 Energy and nutrient reformulation targets for priority food categories**

42

43 When referred to in the context of *A Roadmap for Food Product Reformulation in Ireland*, food
44 reformulation means improving the nutritional content of commonly consumed processed foods and
45 drinks. This is achieved by reducing energy (calories) and target nutrients (saturated fat, sugar, and
46 salt) to improve the nutrient quality of the food supply. Specifically, the Roadmap sets targets for the
47 reduction of energy (calories) and sugar by 20% and salt and saturated fat by 10% between 2015
48 and 2025, in pre-packaged foods consumed by the general population see Figure 1.

49



50 **Figure 1 Nutrient reduction targets for food products prioritised for reformulation in Ireland**
 51 **from 2015 – 2025**

52

53 1.4 Priority food categories for food reformulation in Ireland

54

55 The Food Reformulation Task Force (FRT) published *Priority Food Categories for Food*
 56 *Reformulation in Ireland* in mid-2022. The 40 priority food categories were identified as being in high
 57 priority need of reformulation given their significant contribution to dietary intakes of the target
 58 nutrients in the Irish population (aged 5 - 90 years). Food products which fall into these categories
 59 are required to reformulate to achieve the relevant food reformulation target. In 2022, the FRT
 60 commissioned a review of the contribution of the 77 food categories in the Irish University Nutrition
 61 Alliance (IUNA) National Pre-School Nutrition Survey (2011 – 2012) to dietary intakes of energy
 62 (calories), sugar, saturated fat and sodium in children aged 1 - 4 years of age, by the dietary survey
 63 team at University College Dublin (UCD). This analysis found that, of the 40 food categories
 64 prioritised for food reformulation in Ireland (based on an analysis of dietary intakes of 5-90 years),
 65 29 are contributors to energy (calories), sugar, saturated fat, and sodium dietary intakes in children
 66 1-4 years of age. The report, *Food Reformulation Task Force: Priority food Categories for Food*
 67 *Reformulation in Ireland V3* was updated to reflect this analysis and is published [here](#). **This analysis**
 68 **did not change the 40 priority food categories or their nutrient targets.**

69

70 1.5 Reformulation of Commercially Available Complementary Foods

71 (CACFs)

72

73 *A Roadmap for Food Product Reformulation in Ireland* states “2025 targets will be developed for this
 74 category, based on the FSAI’s work in 2012 and repeated in 2018 addressing the nutritional

75 *composition and quality of products in this category. Infant milk formula is not included in the*
76 *Roadmap*". It outlines that the FRT will build on work completed to date by the FSAI on assessing
77 the nutritional composition and appropriateness of CACFs sold on the Irish market in 2012 and 2018.
78 As well as this the Roadmap states the reformulation approach will align with that of Public Health
79 England (PHE)¹ (Public Health England, 2019, 2020).

80 **CACFs are foods marketed to infants and young children under 36 months of age. All foods**
81 **(excluding infant and young child formula milks, and vitamin and mineral supplements)**
82 **marketed to infants and young children under 36 months of age fall within the scope of the**
83 **draft reformulation targets for CACFs. CACFs are not an essential part of the diets of infants**
84 **and young children.**

85 Infant feeding guidelines state that no added sugar or salt should be used as ingredients in
86 complementary foods (Food Safety Authority of Ireland, 2011, 2012, 2020; Healthy Ireland, 2023).
87 Despite this, a review of CACFs sold on the Irish market in 2012, 2017 and 2021, described in section
88 4.2, found products high in added sugar and salt which is not in keeping with infant feeding guidance
89 (Bennett et al., 2012; Curtis-Davis, McGovern, Lyons, Antropova, & Flynn, 2022; Geraghty et al.,
90 2018; McGovern, Curtis-Davis, Lyons, Antropova, & Flynn, 2022; Taleghani et al., 2018). This
91 situation is not unique to Ireland, and in response the World Health Organisation (WHO) and
92 University of Leeds developed and published the Nutrient and Promotion Profile Model (NPPM)
93 which aims to address the high levels of sugar and salt in CACFs. Addressing this issue is important,
94 as children aged under 36 months are a vulnerable population, and developing a taste preference
95 for sugar and salt in early childhood can increase the risk of obesity and chronic disease in later life.
96 Given the vulnerability of infants and young children under 36 months, there are legislative rules,
97 including nutrition composition and ingredient requirements, for commercial foods targeting this age
98 group including:

- 99 1. *Regulation (EU) 609/2013 Foods for Specific Groups.*
- 100 2. *Commission Directive 2006/125/EC of 5 December 2006 on processed cereal-based foods*
101 *and baby foods for infants and young children.*

102 Although a revision of the legislative guidance on the nutritional composition of processed cereal-
103 based foods and baby foods for infants and young children is expected, it has been significantly
104 delayed.

¹ now referred to as the Office for Health Improvement and Disparities (OHID)

105 **As described here, there are inappropriate CACFs with high sugar and salt content sold on**
106 **the market, which are not in keeping with infant feeding guidelines such as, but not limited**
107 **to, cakes, chocolate confectionery and non-chocolate confectionery. As per infant feeding**
108 **guidance inappropriate CACFs which are high in sugar and salt are unnecessary in the diets**
109 **of infants and young children, as they provide limited nutrient value and displace more**
110 **nutritious foods in the diets. For this reason, they should be avoided to help reduce the risk**
111 **of overweight, obesity and tooth decay. Some inappropriate CACFs cannot be made**
112 **appropriate by reformulation.**

113

114 **1.6 Target nutrients for reformulation in CACFs**

115

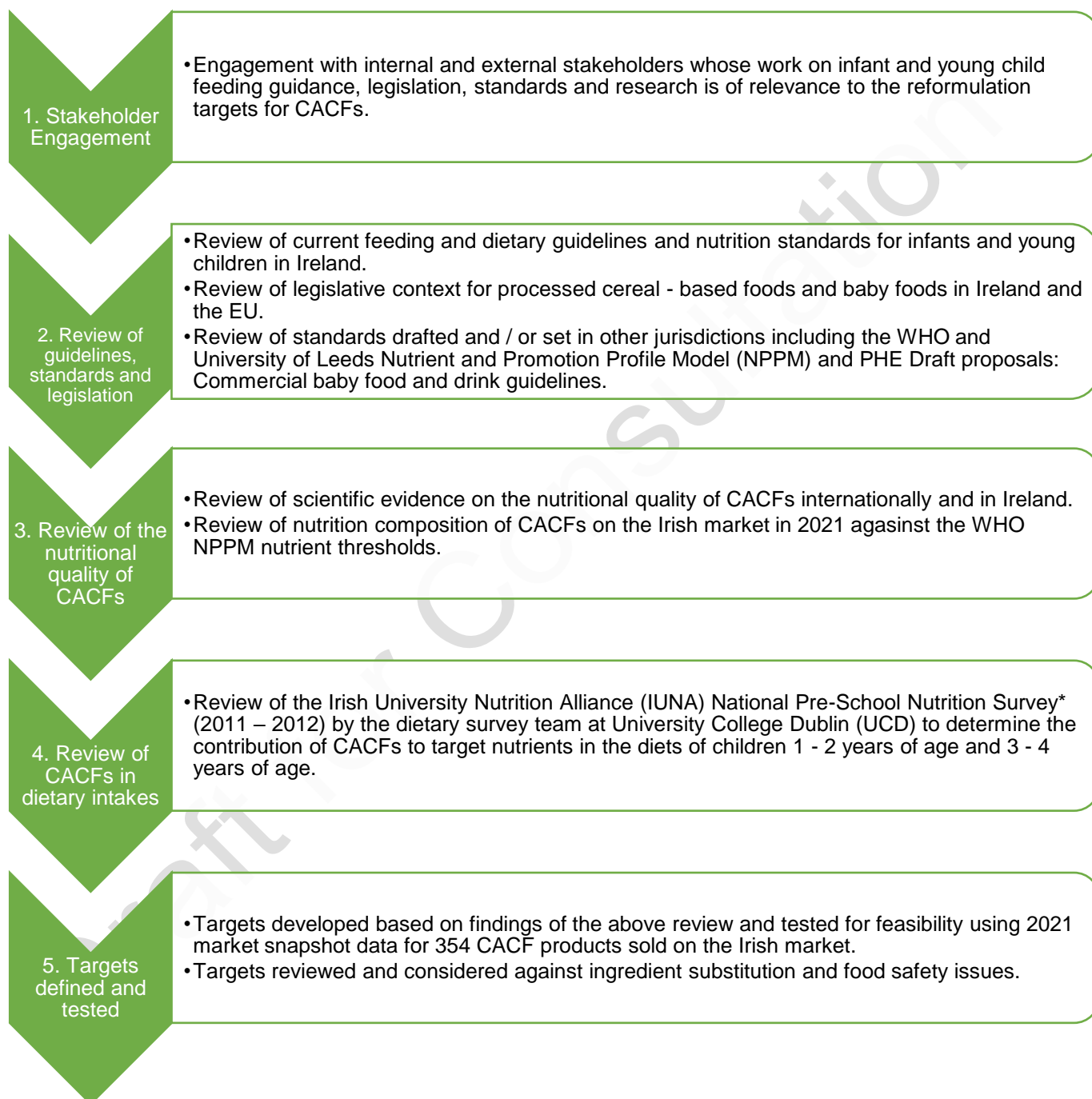
116 *A Roadmap for Food Product Reformulation in Ireland* sets out reformulation targets for a 20%
117 reduction in energy (calories) and sugar and a 10% reduction in saturated fat and salt. These targets
118 cannot be applied directly to CACFs as infants and young children are a vulnerable group with high
119 nutrient requirements but relatively small capacity to consume food (Food Safety Authority of Ireland,
120 2011, 2020). For this reason, low energy and low-fat diets and foods are not suitable for this group,
121 who need energy dense nutritious foods to meet their nutrient requirements (World Health
122 Organisation, 2022). There is limited evidence that saturated fatty acids have any health effects in
123 infants and young children and given this the WHO NPPM does not set thresholds for saturated fat
124 content of CACFs (Astrup et al., 2019). The NPPM sets a minimum rather than maximum energy
125 (calorie) threshold, as energy density is a concern for these foods. **Given this, reformulation**
126 **targets for the reduction of saturated fat and energy are not considered appropriate for**
127 **CACFs and the reformulation of sugar and salt in CACFs will be prioritised.**

128

129

130 **2. Methodology**

131 To define draft reformulation targets for Commercially Available Complementary Foods (CACFs) on
 132 the Irish market, the following steps were undertaken:



133

134 **Figure 2 Methodology followed in the development of draft reformulation targets for CACFs**
 135 **sold on the Irish market**

136 * NPNS includes 9 food categories specific to infant and young child foods as well as the standard 68 NPNS food categories.

137 3. Out of scope

138

139 The following are out of scope of this report as they are beyond the remit of the Food Reformulation
140 Task Force which is set out in *A Roadmap for Food Product Reformulation in Ireland*.

- 141 1. Infant and young child formula milks and food supplements.
- 142 2. Restriction on the promotion, via claims on labelling and media advertising, of inappropriate
143 CACFs.
- 144 3. The level of food processing applied to CACFs.
- 145 4. Any recommendations which constitute the development of new infant feeding guidelines in
146 Ireland.

147

148 4. Summary of the policy, guidance and legislation considered 149 in setting draft reformulation targets for CACFs in Ireland

150

151 4.1 Nutrient and Promotion Profile Model (NPPM)

152

153 The WHO and the University of Leeds published a Nutrient and Promotion Profile Model (NPPM) for
154 commercial complementary foods in the diets of infants and young children under 36 months in 2019.
155 The NPPM was updated in 2022 and is available [here](#) (World Health Organisation, 2022). Nutrient
156 profiling is defined by the WHO as “the science of classifying or ranking foods according to their
157 nutritional composition for reasons related to preventing disease and promoting health”. The NPPM
158 was developed in response to growing concern around the promotion of inappropriate commercially
159 available complementary foods high in sugar and salt, and the potential for these foods to displace
160 appropriate foods in the diets of children under 36 months.

161 The nutritional standards outlined in this model are based on strong scientific evidence (Hutchinson
162 et al., 2021) and have been refined over a number of years by international experts in infant and
163 young child nutrition and population dietary health. Given the strong scientific basis behind the
164 NPPM, the standards are an appropriate basis for reformulation recommendations for Ireland,
165 alongside nutrition composition requirements as set out in the legislation. Where the NPPM and
166 legislative minimum or maximum nutrient amounts differ, the legislative requirements would
167 supersede the NPPM nutrient thresholds.

168 4.2 Legislation, policy and guidelines relevant to CACFs in Ireland

169 A review of the nutrition policy and guideline landscape in Ireland was complete to inform the draft
170 reformulation targets for CACFs. This review included the following policy and guidance:

171 [Scientific Recommendations for a National Infant Feeding Policy](#), (Food Safety Authority of Ireland,
172 2011).

173 [Best Practice for Infant Feeding in Ireland](#), (Food Safety Authority of Ireland, 2012).

174 [Scientific Recommendations for Food Based Dietary Guidelines for 1-5 Year Olds](#), (Food Safety
175 Authority of Ireland, 2020).

176 [Nutrition Standards for Early Learning and Care Services](#), (Healthy Ireland, 2023).

177 The draft reformulation targets outlined in this report align with the above-mentioned guidelines.

178 The relevant legislations for these foods, *including Regulation (EU) 609/2013 Foods for Specific*
179 *Groups and Commission Directive 2006/125/EC of 5 December 2006 on processed cereal-based*
180 *foods and baby foods for infants and young children*, were also reviewed and considered in the
181 development of these draft reformulation targets.

182

183 4.3 A review of nutrient composition of CACFs and their contribution to 184 dietary intakes of sugar and sodium in preschool children living in Ireland

185

186 Several studies have reported high sugar and salt content in CACFs across Europe and the UK
187 (Grammatikaki, Wollgast, & Caldeira, 2021; Hutchinson et al., 2021; Melissa, Berthold, Berthold, &
188 Veit, 2020; Santos et al., 2022). A similar trend is observed in Ireland, where research undertaken
189 since 2012 has identified inappropriate CACFs on the Irish market, with high sugar and salt content
190 (Bennett et al., 2012; Geraghty et al., 2018; Taleghani et al., 2018). The market is also growing,
191 between 2012 and 2017 there was a 72% increase in the number of snack foods sold as CACFs
192 targeting infants 6-12 months in Ireland and the mean sugar content of snack foods targeting infants
193 was 10.6 g (Geraghty et al., 2018). In 2017, CACF's sold as 'biscuits' were higher in sugar than an
194 average digestive biscuit (Geraghty et al., 2018) and CACFs sold as 'toddler bars' were higher in
195 sugar than a standard cereal bar, with a mean sugar content of 26 g (Taleghani et al., 2018). In
196 2017, 74% of snacks targeting babies and 62% of snacks targeting toddlers were deemed
197 inappropriate as they were not in keeping with infant and young child feeding guidelines (Geraghty
198 et al., 2018; Taleghani et al., 2018) A follow up study completed in 2021, observed a minor

199 improvement in the nutritional composition of CACFs targeting infants and young children, however
200 there remained CACFs which were high in sugar and sodium (McGovern et al., 2022).

201 The WHO NPPM was applied to a sample (n=77) of CACFs sold on the Irish market in 2021, in line
202 with the NPPM rapid evaluation methodology. This analysis found that 45% (n=22 / 49) exceeded
203 the $\leq 15\%$ of energy from total sugar threshold for savoury meals and meal components, dry and
204 semi dry snacks, and finger foods. In meals, 44% (n=16 / 36) exceeded the $\leq 15\%$ energy from total
205 sugar threshold, with those failing this criterion (n=16) having a mean of 23% (SD9) energy from
206 sugar. Similarly, 46% (n=6 / 13) of snacks failed, with the mean energy from sugar in failing products
207 being 34% (SD23). 22% (n=17 / 77) of products contained added free sugars which under the NPPM
208 is not permitted, this includes all sugars, syrups, and any fruit juice (100% fruit is permitted).

209 Of the products assessed, 31% (n= 24 / 77) failed the NPPM sodium threshold of 50 mg / 100 kcal
210 (or 100 mg when cheese is within the product name in savoury meal products and dairy based
211 foods). Within failing products, the mean sodium values were 53 mg for 1 of 4 dairy products, 118
212 mg for 4 of 13 fruit and vegetable products, 83 mg for 2 of 13 snacks, 77 mg for 15 of 36 meals
213 without cheese and 122 mg for two meals with cheese.

214 In 2022, the FRT commissioned a review of the Irish University Nutrition Alliance (IUNA) National
215 Pre-School Nutrition Survey (2011 – 2012) by the Dietary Survey Team at UCD. An analysis with a
216 specific focus on CACFs², found they contributed 10.58% of sugar and 2.82% of sodium intakes in
217 preschool children aged 1 - 2 years and 6.64% of sugar and 1.08% of sodium intakes in preschool
218 children aged 3 – 4 years. Puréed fruit and smoothies and fromage frais were found to be significant
219 contributors of sugar in the diets of children aged 1 – 4 years.

220 **These findings demonstrate there is a need to continue to improve the nutrient content of**
221 **CACFs on the Irish market. Improvement of the nutritional quality of CACFs is a priority given**
222 **the vulnerability of the target population and the potential for long term adverse health effects**
223 **as a result of establishing taste preferences for sugar and salt, including an increased risk of**
224 **obesity and chronic disease in later life.**

225

² NPNS includes 9 food categories specific to infant and young child foods as well as the standard 68 NPNS food categories.

226 5. Draft reformulation targets for CACFs in Ireland

227

228 **Based on the evidence summarised in this report, the reformulation of sugar and salt in**
229 **CACFs is prioritised.** The draft reformulation targets for sugar and salt have been established in
230 response to their high levels in CACFs on the Irish market and are intended to improve the nutrient
231 quality of CACFs. However, it must be noted that CACFs are not an essential part of the diets of
232 infants and young children, and draft reformulation targets are not infant feeding guidance or
233 nutritional standards.

234 **There are inappropriate CACFs with high sugar and salt sold on the market, which are not in**
235 **keeping with infant feeding guidelines such as, but not limited to, cakes, chocolate**
236 **confectionery and non-chocolate confectionery. As per infant feeding guidance inappropriate**
237 **CACFs which are high in sugar and salt are unnecessary in the diets of infants and young**
238 **children, as they provide limited nutrient value and displace more nutritious foods in the diet.**
239 **For this reason, they should be avoided to help reduce the risk of overweight, obesity and**
240 **tooth decay. Some inappropriate CACFs cannot be made appropriate by reformulation.**

241

242

243 **5.1 Draft reformulation targets for sugar**

244

245 **In line with Ireland’s infant feeding guidance, no sugars or sweetening agents should be**
246 **added to CACFs as ingredients.**

247 Added sugars are defined by the European Food Safety Authority as “*mono- and disaccharides*
248 *added to foods as ingredients during processing*”. This includes free sugars which are sugars
249 naturally present in honey, syrups, fruit and vegetable juices and fruit and vegetable juice
250 concentrates / powdered fruit and vegetable juice (EFSA Panel on Nutrition et al., 2022).

251 Given infant and young children’s requirement for altered textures there is a need to use fruit and
252 vegetable purées as foods and food ingredients for babies. An allowance will be made for this
253 requirement, and the use of macerated /mashed / pureed fruit and vegetables (other than juices and
254 juice concentrates³) is permitted. However, to keep the sugar content of CACFs as low as feasibly
255 possible, manufacturers are requested to:

- 256 1. limit and reduce the amount of macerated /mashed / pureed fruit added as ingredients
257 wherever possible, and
258 2. refrain from masking the flavour of less sweet or bitter vegetables with sweet vegetables and
259 fruit i.e., sweet, and bitter fruit and vegetables should not be mixed in order to mask the
260 flavour of vegetables.

261

262 Additionally, savoury meals⁴ and snacks / finger foods⁵ should have $\leq 15\%$ of energy (calorie) from
263 total sugar.

264 The draft reformulation targets for sugar are summarised in Table 1.

265

266

267

268

269

³ Excluding lemon or lime juice which are permitted to be used in small quantities.

270 **Table 1. Draft reformulation targets for sugar content of CACF for achievement by 2025**

Sugar	Food category and threshold
Added sugar	<p>In line with infant feeding guidance, no sugars should be added to CACFs as ingredients.</p> <p>Added sugars are defined by the European Food Safety Authority as “<i>mono- and disaccharides added to foods as ingredients during processing</i>” and include free sugars which are sugars naturally present in honey, syrups, fruit and vegetable juices and fruit and vegetable juice concentrates / powdered fruit and vegetable juice (EFSA Panel on Nutrition et al., 2022).</p>
Total sugar	<p>≤15% of energy (calorie) from total sugar in savoury meals⁴ and snacks / finger foods⁵.</p>

271

272

⁴ Savoury meals mean all savoury meals, such as vegetable, meat and fish-based meals and meal components which include combinations of starches, vegetables, dairy and / or traditional protein and which are sold in pouches, jars and containers and marketed to infants and young children under the age of three years.

⁵ Snacks and finger foods means any grain, starch, pulse/lentil, or root vegetable snack such as cracker, bread, rusk marketed to children under the age of three years. Snack products should be nutritious savoury and plain foods. As per infant feeding guidance inappropriate CACFs such as chocolate and non-chocolate confectionery, and other high fat, sugar and salt foods are unnecessary in the diets of infants and young children and should be avoided.

273 **5.2 Draft reformulation targets for salt**

274

275 **In line with infant feeding guidance no salt should be added to CACFs.**276 Sodium salts can be added for technological purposes only and should be limited to ≤ 50 mg / 100277 kcal for processed cereal based foods and baby foods for infants and young children and ≤ 100 mg

278 / 100 kcal for savoury meal products and dairy based foods if cheese is named within the front-of-

279 pack product name. The draft reformulation targets for salt are summarised in Table 2.

280

281 **Table 2. Draft reformulation targets for salt content of CACF for achievement by 2025**

Salt	Food category and threshold
Salt	In line with infant feeding guidance, no salt should be added to CACFs as an ingredient.
Sodium salts	Sodium salts can be added for technological purposes only. If added, sodium salts should be limited to <ul style="list-style-type: none"> • ≤ 50 mg / 100 kcal. • ≤ 100 mg / 100 kcal if cheese is named within the front-of-pack product name in savoury meal products⁴ and dairy based foods⁶.

282

283

284

285

⁶ Dairy based foods (fromage frais, desserts, rice pudding) and cereals where dairy is the largest ingredient.

286 **5.3 Time frame to achieve targets and monitor progress**

287

288 **Reformulation targets should be achieved by December 2025.**

289 Progress in achieving these reformulation targets will be measured between 2021 and 2025. To
290 measure progress, a market snapshot of CACF products available on the market in 2021 will be
291 compared against a market snapshot which will be completed in 2025. Results will be published in
292 the Food Reformulation Task Force progress report.

293

Draft for Consultation

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295

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310 **7. References**

- 311 Astrup, A., Bertram, H. C., Bonjour, J.-P., de Groot, L. C., de Oliveira Otto, M. C., Feeney, E. L., . . .
 312 . Soedamah-Muthu, S. S. (2019). WHO draft guidelines on dietary saturated and trans fatty
 313 acids: time for a new approach? *BMJ*, *366*, l4137. doi:10.1136/bmj.l4137
- 314 Bennett, A. E., O'Connor, A., Canning, N., Kenny, A., Keaveney, E., Younger, K., & Flynn, M.
 315 (2012). Weaning onto solid foods: some of the challenges. *Irish Medical Journal*, *105*(8),
 316 266.
- 317 Curtis-Davis, O. A., McGovern, G. M., Lyons, O. C., Antropova, O., & Flynn, M. A. T. (2022).
 318 Reformulation of yogurts and baby foods marketed in Ireland: a snapshot of 2021
 319 compared with 2017. *Proceedings of the Nutrition Society*, *81*(OCE4), E105.
 320 doi:10.1017/S0029665122001343
- 321 Department of Health. (2016). *A Healthy Weight for Ireland: Obesity Policy and Action Plan 2016 –*
 322 *2025*. Dublin: The Stationery Office
- 323 Department of Health. (2021). *Roadmap for Food Product Reformulation in Ireland*
- 324 EFSA Panel on Nutrition, N. F., Allergens, F., Turck, D., Bohn, T., Castenmiller, J., de Henauw, S.,
 325 . . . Vinceti, M. (2022). Tolerable upper intake level for dietary sugars. *EFSA Journal*, *20*(2),
 326 e07074. doi:https://doi.org/10.2903/j.efsa.2022.7074
- 327 Food Safety Authority of Ireland. (2011). *Scientific Recommendations for a National Infant*
 328 *Feeding Policy, 2nd Edition*.
- 329 Food Safety Authority of Ireland. (2012). *Best Practice for Infant Feeding in Ireland: From pre-*
 330 *conception through the first year of an infant's life*.
- 331 Food Safety Authority of Ireland. (2020). *Scientific Recommendations for Food-Based Dietary*
 332 *Guidelines for 1 to 5 Year-Olds in Ireland*.
- 333 Geraghty, C. J., Taleghani, S., O'Mahony, S., Lyons, O. C., Donovan, C. M., O'Donovan, C. B., &
 334 Flynn, M. A. T. (2018). Are baby foods as innocent as they may look? *Proceedings of the*
 335 *Nutrition Society*, *77*(OCE3), E81. doi:10.1017/S002966511800085X
- 336 Grammatikaki, E., Wollgast, J., & Caldeira, S. (2021). High Levels of Nutrients of Concern in Baby
 337 Foods Available in Europe That Contain Sugar-Contributing Ingredients or Are Ultra-
 338 Processed. *Nutrients*, *13*(9). doi:10.3390/nu13093105
- 339 Healthy Ireland. (2023). *Nutrition Standards for Early Learning and Care Services*
- 340 Hutchinson, J., Rippin, H., Threapleton, D., Jewell, J., Kanamäe, H., Salupuu, K., . . . Breda, J.
 341 (2021). High sugar content of European commercial baby foods and proposed updates to
 342 existing recommendations. *Maternal & Child Nutrition*, *17*(1), e13020.
 343 doi:https://doi.org/10.1111/mcn.13020
- 344 McGovern, G. M., Curtis-Davis, O. A., Lyons, O. C., Antropova, O., & Flynn, M. A. T. (2022).
 345 Reformulation of breakfast cereals and toddler foods marketed in Ireland: a snapshot of
 346 2021 versus 2017. *Proceedings of the Nutrition Society*, *81*(OCE4), E91.
 347 doi:10.1017/S0029665122001203
- 348 Melissa, A. T., Berthold, K., Berthold, K., & Veit, G. (2020). Nutritional Adequacy of Commercial
 349 Complementary Cereals in Germany. *Nutrients*. doi:10.3390/nu12061590
- 350 Public Health England. (2019). *Foods and drinks aimed at infants and young children: evidence*
 351 *and opportunities for action*.
- 352 Public Health England. (2020). *DRAFT PROPOSALS: Commercial baby food and drink guidelines*.
- 353 Santos, M., Matias, F., Loureiro, I., Rito, A. I., Castanheira, I., Bento, A., & Assunção, R. (2022).
 354 Commercial Baby Foods Aimed at Children up to 36 Months: Are They a Matter of
 355 Concern? *Foods*, *11*(10). doi:10.3390/foods11101424
- 356 Taleghani, S., Geraghty, C. J., O'Mahony, S., Lyons, O. C., O'Donovan, C. B., Donovan, C. M., &
 357 Flynn, M. A. T. (2018). Toddler foods on the Irish market – snack attack! *Proceedings of the*
 358 *Nutrition Society*, *77*(OCE3), E86. doi:10.1017/S0029665118000903

359 World Health Organisation. (2022). *Nutrient and promotion profile model: supporting appropriate*
360 *promotion of food products for infants and young children 6–36 months in the WHO*
361 *European Region*. Retrieved from
362

Draft for Consultation

363

364



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