A Global Whole Grain Definition – introductory remarks	
This global definition of whole grain refers to whole grain as a raw material and a food ingredient. The definition is generic and does not include quantitative criteria relevant for a single grain. In addition to the generic definition an overview will be given with examples of quantitative criteria related to whole grain wheat.[1]	
Proposal for Definition	**Proposal for Annex / additional information**
Whole grains shall consist of the intact, ground, cracked, flaked or otherwise processed kernel after the removal of inedible parts such as the hull and husk. The principal anatomical components - the starchy endosperm, germ and bran - are present in the same relative proportions as they exist in the intact kernel.	In English two terms exist: whole grains and wholemeal. The definition, with the terms 'ground, cracked and flaked', implies that wholemeal indicates a type of whole grain product. Other major languages use only one term.
This definition applies to - all cereal grains of the Poaceae family that are listed for human consumption. - the pseudocereals amaranth, buckwheat, quinoa.	The Poaceae (also called Gramineae) family includes all kinds of edible and other grasses. A wide range of edible ones, called cereal grains, are listed in the AACCI and Healthgrain definition, together with the 3 accepted pseudocereals.(see e.g. Healthgrain wholegrain_definition_) The global definition allows addition of newly developed types of cereal grains, such as Tritordeum, when they are accepted by the relevant authoritative body as grain for human consumption. Following existing definitions and dietary guidelines of whole grain worldwide, pulses and legumes are not included.
Processing includes dry and wet primary processing of grains and their fractions – i.e. endosperm, bran and germ - taking into account the following points	Grains need to be processed before consumption. The 'primary processing of grains includes processes for removal of inedible parts, for unlocking of the nutrients by dry (e.g. milling) and wet (e.g. malting, sprouting) processes, and stabilization / reducing deterioration after storage e.g. by inactivation of enzymes (e.g. toasting of germ and of rice bran). Therefore, in addition to the "ground, cracked, flaked' mentioned in the AACCI and Healthgrain definition "otherwise processed" is included. Issues related to further processing such as baking and extrusion for preparing food products are outside the scope of the definition of whole grain as a raw material.
- The adding together, after temporary separation, of the three whole grain constituents as separate ingredients, in the correct proportion at both the milling stage and at the stage of baking/ food processing. - The ability to recombine milling fractions and to use components of grains from other batches as long as the	Both these ways are consistent with longstanding food industry technological and safety practices. Correct proportions are grain specific. Listing of such proportions can be included in grain-specific definitions and standards. In most commonly applied milling processes endosperm, bran and germ are separated for later recombination. For most whole grains and flours that require a long shelf life, the germ and bran fraction

final product contains the component parts of the grain in line with their pre-processed proportions. - The ability to recombine fractions from different varieties of the same grain as long as the final product contains the component parts of the grain in line with their pre-processed proportions.	are heat stabilized, followed by recombination - with endosperm of a batch of grain that entered the plant later. In many large flour milling plants a wide range of varieties of the same grain are processed.
- Small losses of components that occur through processing methods consistent with safety and quality are allowed.	Removal of the very outer bran layer is acceptable for minimising levels of undesirable substances such as bacteria, mycotoxins, agrochemicals and heavy metals. The maximum acceptable level of losses depends on the type of grain and local conditions and will therefore be kept open to local regulators. For wheat the maximum level set in Switzerland is 2%. This was used in the Healthgrain definition for all grains. NOTE: higher levels may be required due to local constraints and can be set by local regulators.
- Fermented, malted or sprouted grains containing all of the original bran, germ, and endosperm shall be considered whole grains as long as sprout growth does not exceed kernel length and nutrient values have not diminished. - Processing should not result in a >10 % reduction in the dietary fibre content (as an indicator of the amount of beneficial components within the whole grain).	

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[1] An overview of quantitative specifications for whole grain wheat flour and wheat bran as used by major industries and consortia is being prepared. The data show that these specifications are in line with data presented in food composition tables.

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