

Calibrated Diagnostic Panels: A repeatable rapid descriptive method

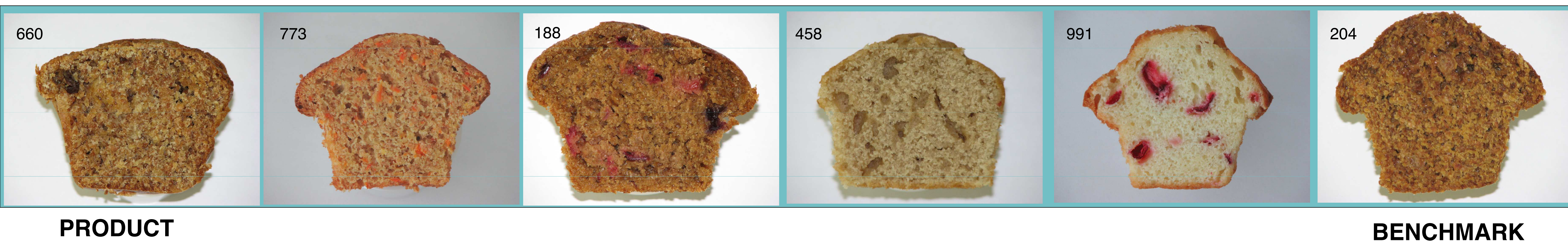
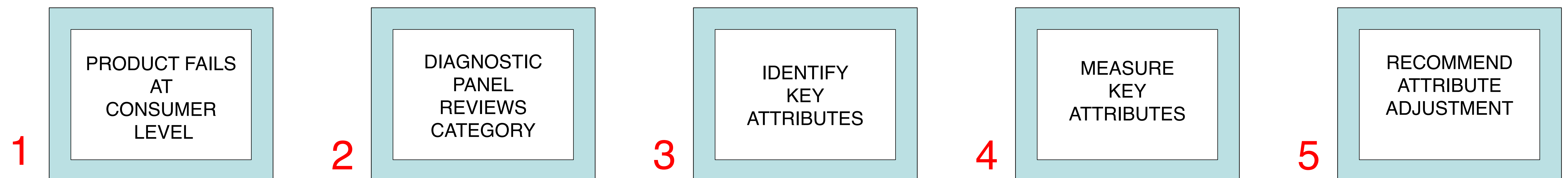
C. J. Findlay ¹Compusense Inc., Guelph, Ontario, Canada

Email: cfindlay@compusense.com - Fax +1 5198369898 - Phone +1 5198369993

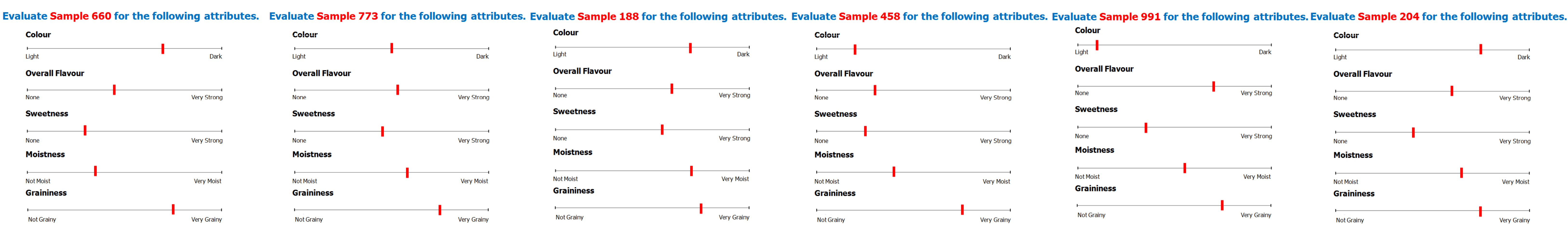
ABSTRACT

A diagnostic panel is used to understand the failure of a new product to meet benchmark requirements. A simple pass/fail system does not provide any information to a developer or a supplier when a product submission fails. The lack of direction creates two problems. First, any change that is made is uninformed. Second, when the revised product is resubmitted, it is not known whether the change to the formulation has any effect on the sensory properties of the product. A diagnostic panel performs a 1-h review of the product and selected members of its category to identify the key attributes that differentiate the products (similar to flash profiling or napping). The products are then evaluated using an unstructured line scale for each of the key attributes. The values for the benchmark product are captured as the target profile for the product. The significant differences between the product and its benchmark provide the directions for changing the product. When the revised product is received for evaluation, the panel is calibrated using the benchmark product using the feedback calibration method. Then the products are profiled for the key attributes. The revised product is evaluated relative to the benchmark to determine whether the formula change has moved the profile towards the benchmark. If the product is determined to be close enough to the target profile, the product is subjected to consumer testing to verify that the change has been successful. Examples of this method will be provided to illustrate the steps in the procedure. This technique has resulted in an 80% success rate for reformulated products in a private label program.

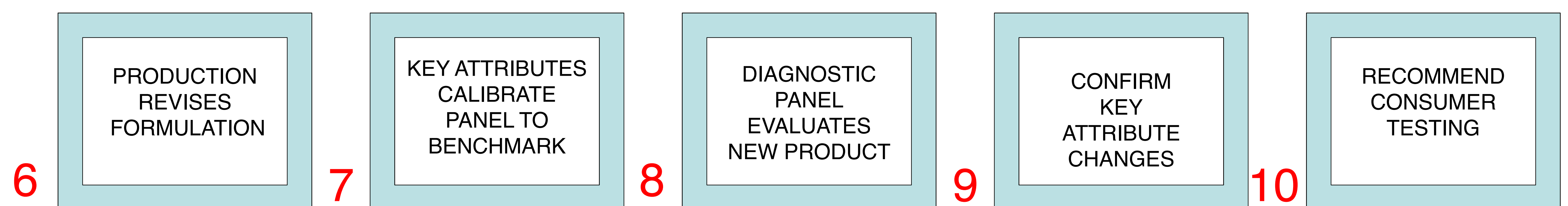
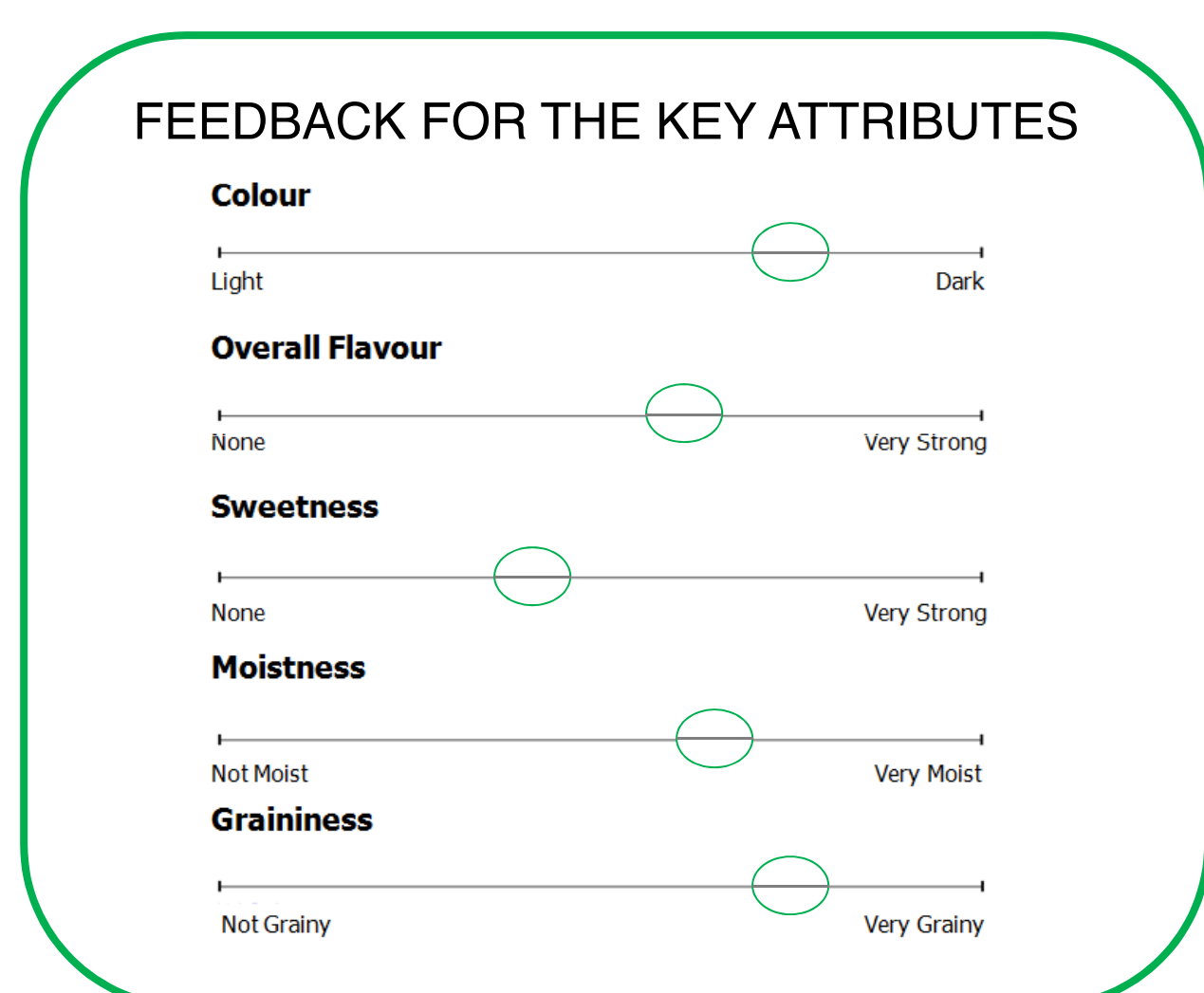
STEPS:



Key Attributes: Colour, Overall Flavour, Sweetness, Moistness, Graininess.



Diagnostic Profiles for the Product, 3 other category representatives and the Benchmark



CONCLUSION:

The method provides a rapid and repeatable process to determine what changes must be made in a product to bring it in line with a benchmark. The use of the benchmark feedback profile calibrates the panel and makes reassessment of a revised product meaningful. When this process is applied in a practice, over 80% success rate for reformulated products has been achieved.

Reference: Feedback Calibration: a training method for descriptive panels Findlay, C.J., Castura, J.C., Lesschaeve, I. Food Quality and Preference, 2007, 18(2), 321-328