Supplemental material 1: Example of ORCHID Calculation of one individual

1) Calculation of the ORCHID components with positive rating system

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| ALAPAGE food group | number of occurrences (nb\_o) | Calculation method | ORCHID component (OC) |
| Fruits | 2 | * OC = nb\_o\*2 | 4 |
| Vegetables | 9 | 18 |
| Fatty Fish | 1 | 2 |
| Wholemeal and Semi-Wholemeal Products (Including Bread) | 1 | 2 |
| Legumes | 1 | 2 |
| Lean Fish and Shellfish | 2 | 4 |
| Nuts | 1 | 2 |
| Refined Starches (Including Bread) and Potatoes | 3 | * OC = nb\_o | 3 |
| Poultry (and Rabbits) | 1 | 1 |
| Eggs | 1 | 1 |
| Cheese | 3 | 3 |
| Milk and Fresh Dairy Products | 0 | 0 |

2) Calcul of the ORCHID components with threshold rating system

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| ALAPAGE food group | number of occurrences (nb\_o) | Calculation method | ORCHID component (OC) |
| Meat excluding poultry | 2 | * nb\_o =< 1,5, OC = nb\_o\*1 * nb\_o> 1,5, OC = (nb\_o- 1.5)\*(-1) | -0.5 |
| Cooked Ham | 1 | 1 |
| Deli Meat Excluding Cooked Ham | 3 | * nb\_o =<1,5, OC = nb\_o * nb\_o> 1,5, OC = (nb\_o- 1.5)\*(-2) | -1 |
| Butter, Margarine and Fresh cream | 4 | * nb\_o =<3, OC = nb\_o * nb\_o> 3, OC = (nb\_o- 3)\*(-2) | -1 |
| Salted Aperitif Products | 0 | 0 |
| Sweetened Drinks (Including Juice) | 2 | 2 |
| Sweetened Products (Including Sugar) | 12 | * nb\_o =<9, OC = nb\_o * nb\_o> 9, OC = (nb\_o- 9)\*(-2) | -6 |

3) Calculation of the ORCHID components Oils

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| ALAPAGE food group | number of different type of oils | Calcul method | ORCHID component (OC) |
| Oils | * Olive oil * Mixed oil (colza and sunflower) | OC = ∑ different type of oil + ∑ (different mixed oil)\*2 | 3 |

4) Calculation of ORCHID:

ORCHID = ∑ OC

**ORCHID = 39,5**