

PILLAR 2. FRUIT AND HUMAN HEALTH

WP 2.1 Health effects of whole and processed fruit (FRUITEFFECTS)

WP 2.2 Fruit in the prevention of overweight (FRUITSLIM)

WP 2.3 Non-allergy and low-allergy fruit (FRUITSAFE)

WP 2.4 The safety of novel pre- and postharvest procedures (FRUITCLEAN)

The objectives addressed by pillar 2 are to **increase the safety of fruit** and to **raise the consciousness/awareness of the consumer** about the positive health effects of regular fruit consumption. These objectives will be addressed by initiating four work packages already within the first 18 months. Each work package is aimed at an important question expected to influence consumers' consciousness and choices and two of them directly address safety. The questions are:

1. Are processed fruit just as healthy as fresh fruit? This is addressed by five tasks in WP2.1 (**FRUITEFFECTS**) which build up our answer to this question from animal models which pinpoint the best markers through human experimental studies which can verify them to bio-bank based, marker-assisted epidemiology, which can supply risk reduction estimates.

2. Is free fruit at the workplace a tool in weight management? This is addressed in WP2.2 (**FRUITSLIM**) directly by intervention since the campaigns that deliver the free fruit are already running. A pilot study in the first year precedes the full-scale study.

3. Are there fruit varieties which are safe to the large group of allergic Europeans? This is answered in WP2.3 (**FRUITSAFE**) by systematically testing a large number of European apple varieties in human volunteers. Plan B - to breed an allergen free GMO-apple – is initiated.

4. Can we decrease contaminants in fruit by new efficient pre and post harvest techniques? This is addressed in WP 2.4 (**FRUITCLEAN**) by chemical analyses of residues in material from a diverse range of field studies.

The importance of these questions to the consumer is monitored through cooperation with pillar 1 and information is fed back to influence the development of our research. The four activities will provide answers to be channelled through the dissemination activities in pillar 7 to growers, retailers and other professionals and through cooperation with major European public fruit campaigns to the consumers. The figure below shows the range of interactions between this pillar and other scientific parts of ISAFRUIT.