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ILLIAD project: Sustainable, local or localised, innovative food chains – application to apricot production

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ILLIAD (a French national project, 2012-2015) proposes a method to analyze the system sustainability of food chains. The sustainability of food systems has been defined in terms of their effects on environment, economics and society, until now. ILLIAD aims to propose a method that allow to take into account the ability of these food systems to perdure or develop, in the long run, and aims to access their ability to increase their positive effects on environment, economics and society.

Methodology to analyze the systemic sustainability of the food chain

Four practical cases describing the three typical trajectories (Figure 1):

- the chain innovation / creation of a new chain (peach and apricot) (Figure 2)
- the chain differentiation / development of distinctive products (rice and spelt)
- the territorial embedding / strengthening interlinkages between economic activities (wheat and equestrian centers).

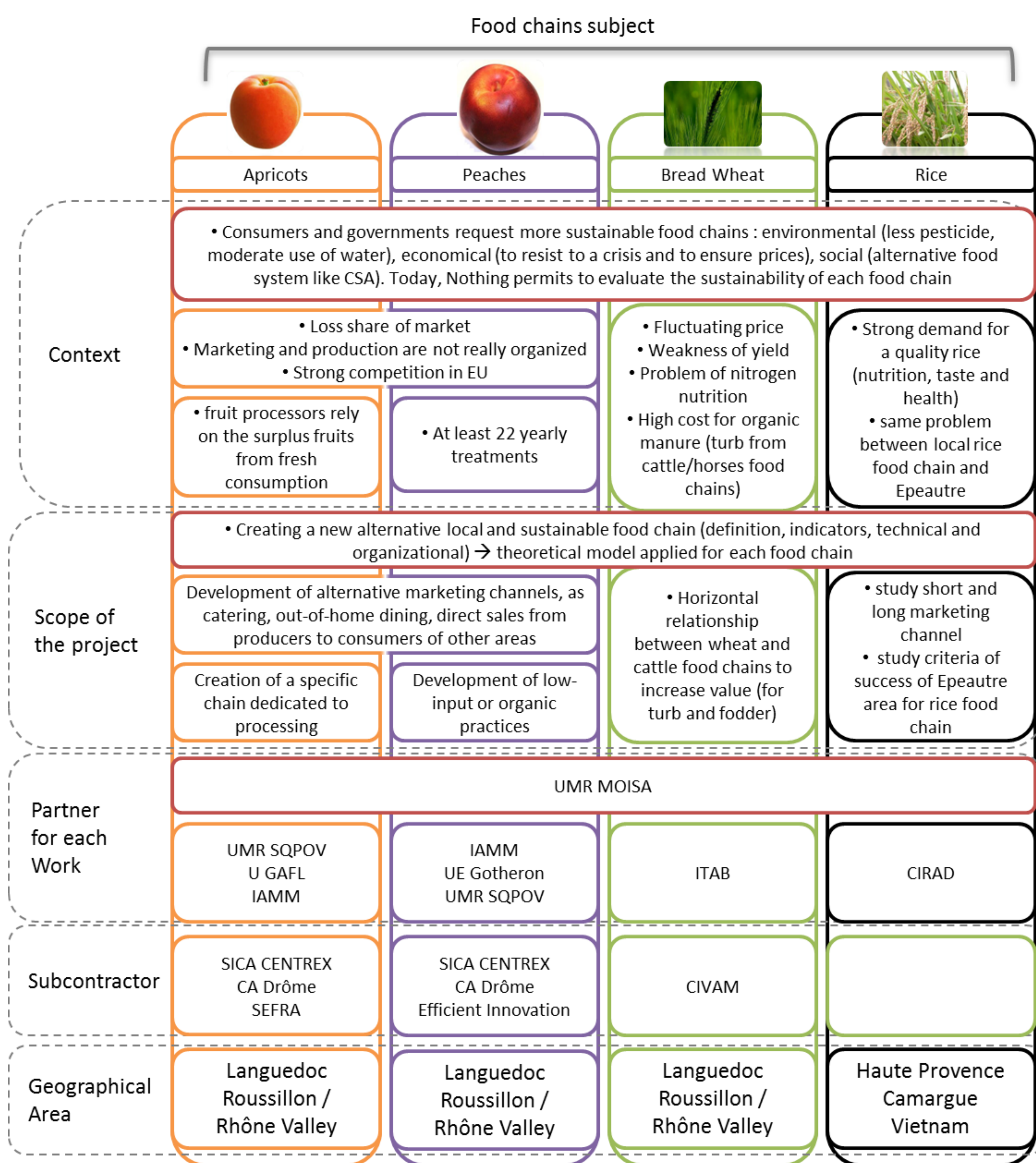


Figure 1: Food chains studied in the ILLIAD project

The expected results for apricot chain could be of great interest in defining both fresh and processed fruit ideotypes. One hindrance for development of orchards dedicated to processing is the high cost of manpower. So, our project includes the experimental analysis of mechanical harvest of orchards (see poster Gouble et al.).

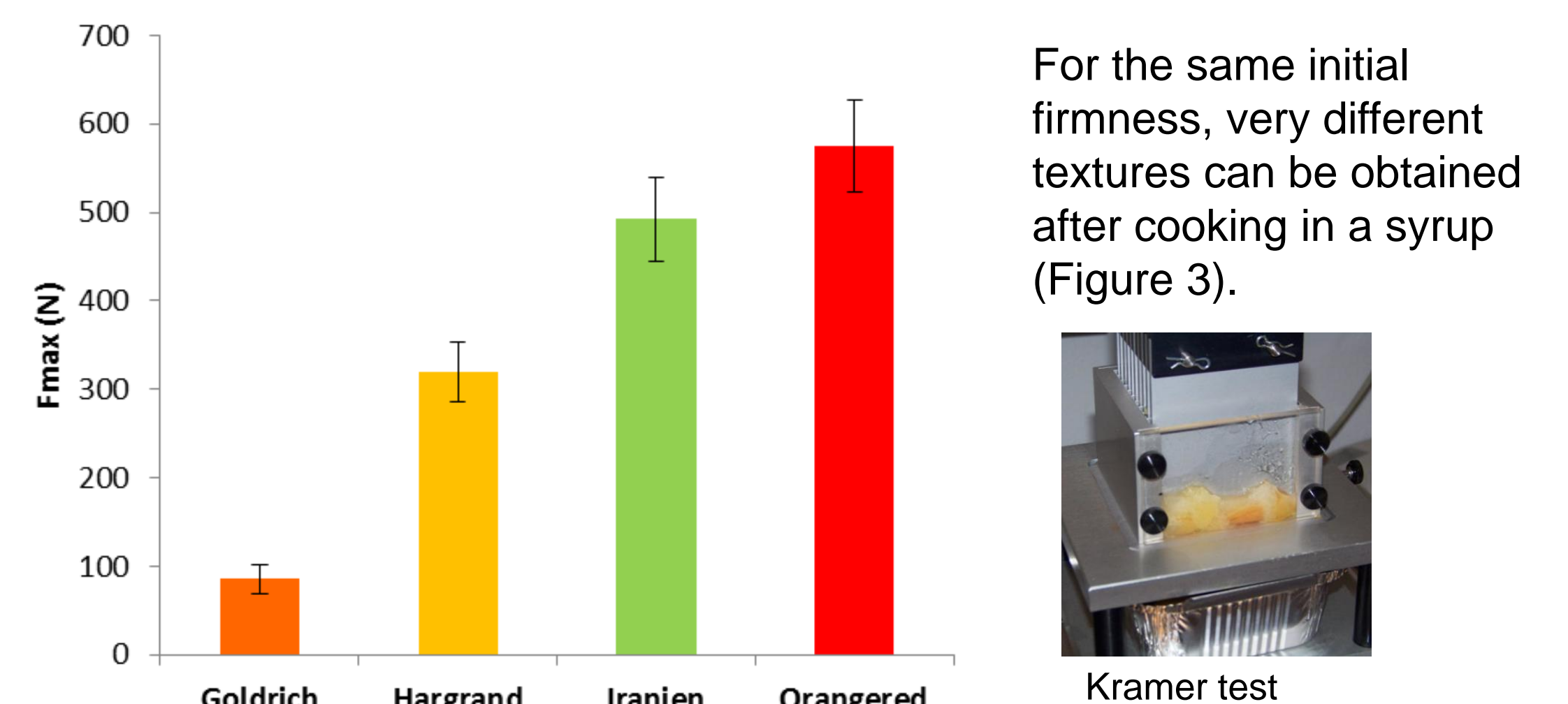
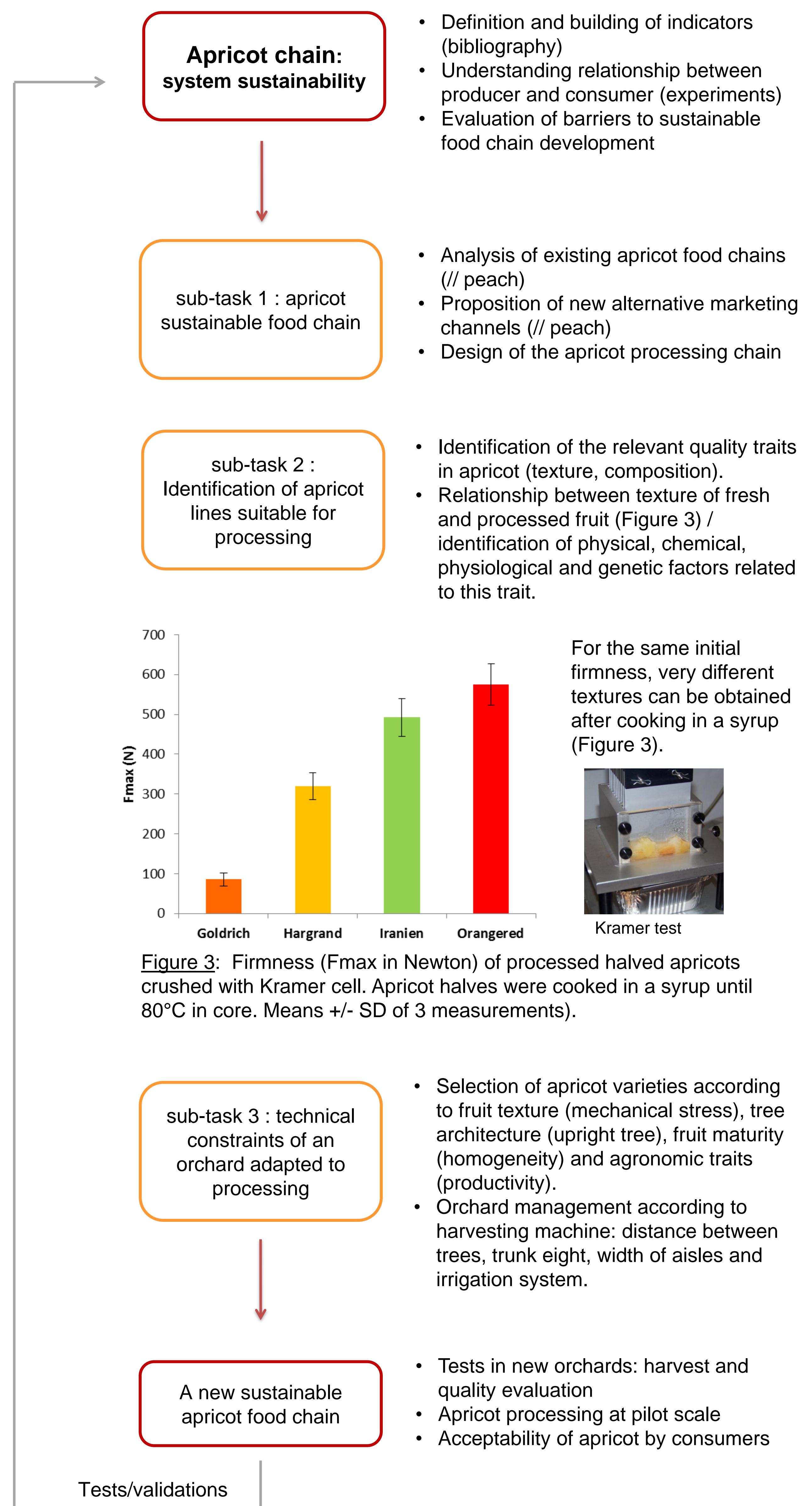


Figure 3: Firmness (Fmax in Newton) of processed halved apricots crushed with Kramer cell. Apricot halves were cooked in a syrup until 80°C in core. Means +/- SD of 3 measurements).

Figure 2: Focus on apricot chain

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