With rubber trees occupying about 3.2 million hectares in Indonesia in 2006, the need for planting material from nurseries is rapidly increasing: more than 30 million plants for 2007. Nurseries can hardly manage to provide recommended seedling progenies as rootstocks. Propagation of clonal rootstocks through in vitro microcuttings could be an alternative way. The development of rootstock clones is a multi-faceted challenge.

### In vitro Propagation

Achievement of the microcutting process - Cirad, France, 1980 - 1993

- **2006**
  - Feasibility
  - Transfer of the technology: microcutting from seedlings in Indonesian laboratories

- **2008**
  - Production Test Pilot
    - (2011) Small scale Production
    - (2017) Scale-up

### Selection

- **2006**
  - Selection of 100 vigorous seedlings out of 43,000 ones
  - Set-up field trials with clonal rootstocks (RT). Early selection of candidate RT clones

### Rootstock/scion

- **2008**
  - Interaction - Biology of development - Agronomy - Cellular and molecular physiology
  - Data from agronomic field trials to support the quality of the new varietal type

### Field Trial

- **2007**
  - Field trial: it was shown that in vitro plantlets had a well-developed taproot and lateral root system, with an architecture similar to that of plants obtained from seed.

### International Rubber Conference & Exhibition (IRCE) 2007, 2007/06/13-15, Bali, Indonesia