Financing models for organic breeding

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Workshop 2nd June 2021

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090. The information contained in this communication only reflects the author’s view. Neither the Research Executive Agency nor SERI is responsible for any use that may be made of the information provided.
The new European Organic Regulation 2018/248 and some definitions

Regulation as a framework for the implementation of the organic values with a strong focus on processes, which include also cultivar and seed choice

Organic breeding and breeding for organic:

- **In organic breeding**, plant breeders shall select their varieties under organic conditions
- **In breeding for organic**, plant breeders shall select their varieties at least in the final selection steps under organic conditions
Organisational and financing model in organic breeding

- Dominant model in ‘breeding for organic’ based on refinancing through royalties and seed sales in arable and vegetable sectors:
  - Focuses on major crops and varieties because more economically efficient to reach a large sales market
  - Minor and niche crops and varieties are neglected
  - Licence income and seed sales cover less than 10% on average of return for breeding for organic
  - Mainly non-organic conditions during the breeding process
Organisational and financing model in organic breeding

- **Public funding / research**
  - Usually only short term-funding and mainly for breeding research rather than practical breeding work
  - However still important esp. if in partnership with private companies, for breeding for mixed cropping systems, pre-breeding for neglected crops, research of traits for organic

- **Donations**
  - Unstable source of income for the breeder
  - So far happening only in a few countries of Central Europe
  - A legal framework doesn’t exist because of the danger for market competition distortion
Organisational and financing model in organic breeding for arable and vegetable crops

- Supply chain partnership:
  - Collaboration among supply chain members from breeders, processors and traders to identify breeding goals and orientation towards added value for consumers
  - Private label can contribute to a marketing strategy and obtain a price premium (e.g. Bioverita)
  - Can be further supported by public funding and donations, but engagement / support of downstream players is key, e.g. example of organic durum wheat variety in Italy:

An example of an organic variety of durum wheat developed in Italy
Hypothetical example organic wash/storage carrots in Germany:

- 51,023 tons yearly production in Germany
- 1,58 €/ton is the average whole-sale price, of which 0.2% would amount 3.16 € → 161,595 € would go into organic breeding