



On-farm produced vegetable seeds and seedlings

Participatory seed-production: Propagation, Quality assurance, dissemination and organisational structure

Workshop in the frame of the LEONARDO DA VINCI partnership
“Growing agricultural biodiversity: knowledge and practice in Europe”
24th and 25 th of March 2014 at Gärtnerhof Ochsenherz in Gänserndorf

GROW Workshop

Results of the working groups

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1 Varieties as open source – who “owns” the varieties?

Goal: Free varieties / land races ⇒ common ownership for everyone

Dangers/problems:

- Many varieties are not free
- Others could take a variety and put a patent or a plant breeders right on it
- What if new variety is taken up by Monsanto/Syngenta – DNA ownership ⇒ legislation
- UK: some people donate the seed but do not want it distributed
- Not just varieties open source but also the knowledge + history + the culture of the varieties open source
- Changing the system of multinationals – needs large financial investments

Possibilities:

- Common property like copy left (open source, along the lines of computer software)
- Official registration ⇒ only if it's free for everyone everywhere
- Wiki seeds – name, description, “origin”, care taker – seed guardian
- Pack some seeds post it (time and date) freeze it

Financing:

- Through funding for the breeding process / crowd funding
- Cost of seed production integrated into other farm/growing costs
- For wiki seeds!
- e.g. Hungary: – volunteers – national gene bank (free but cannot sell seeds)
Do not always know who owns them
In Hungary 1% o tax you can choose where it is used – Churches/NGO

Appreciation/estimation for the work:

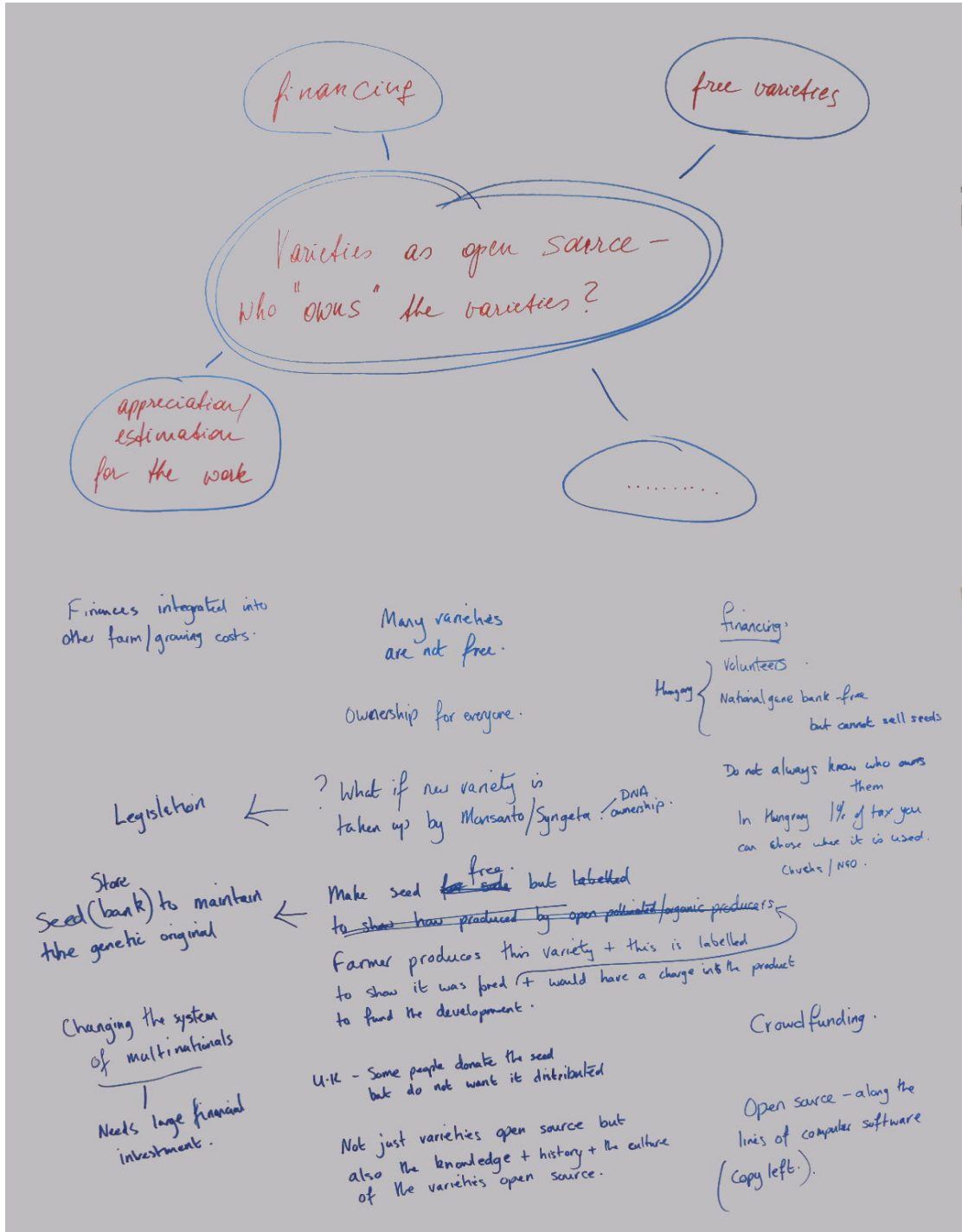
- Make seed free! but
Farmer produces this variety + this is labelled to show it was bred + would have a charge in the product to fund the development
⇒ Seed bank/store to maintain the genetic origin



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2 How can the propagation be organized in a decentralised system?

Propagation aims:

- “Immigrant” seeds
- Regional adopted variety (environmental + cultural)
- Conservation
- Seed production
 - selling seeds
 - selling/producing products
- Development of new varieties / breeding aims
 - regionally adopted varieties
 - globally usable varieties
- Pool of choosen/desired varieties

Communication + structure within group:

- Coordination
 - yes/no?
 - one person / board /group
 - regional / national / local coordination
- Structure of decision-finding

Knowledge:

- Which knowledge do we have?
- Where do we get it from?
- Which knowledge do we need?

Location:

- How do we find the adequate location for propagating each single variety?
 - environmental conditions
 - specific knowledge of seed saver (propagation + cultivation + use)

Advantage of decentralised system:

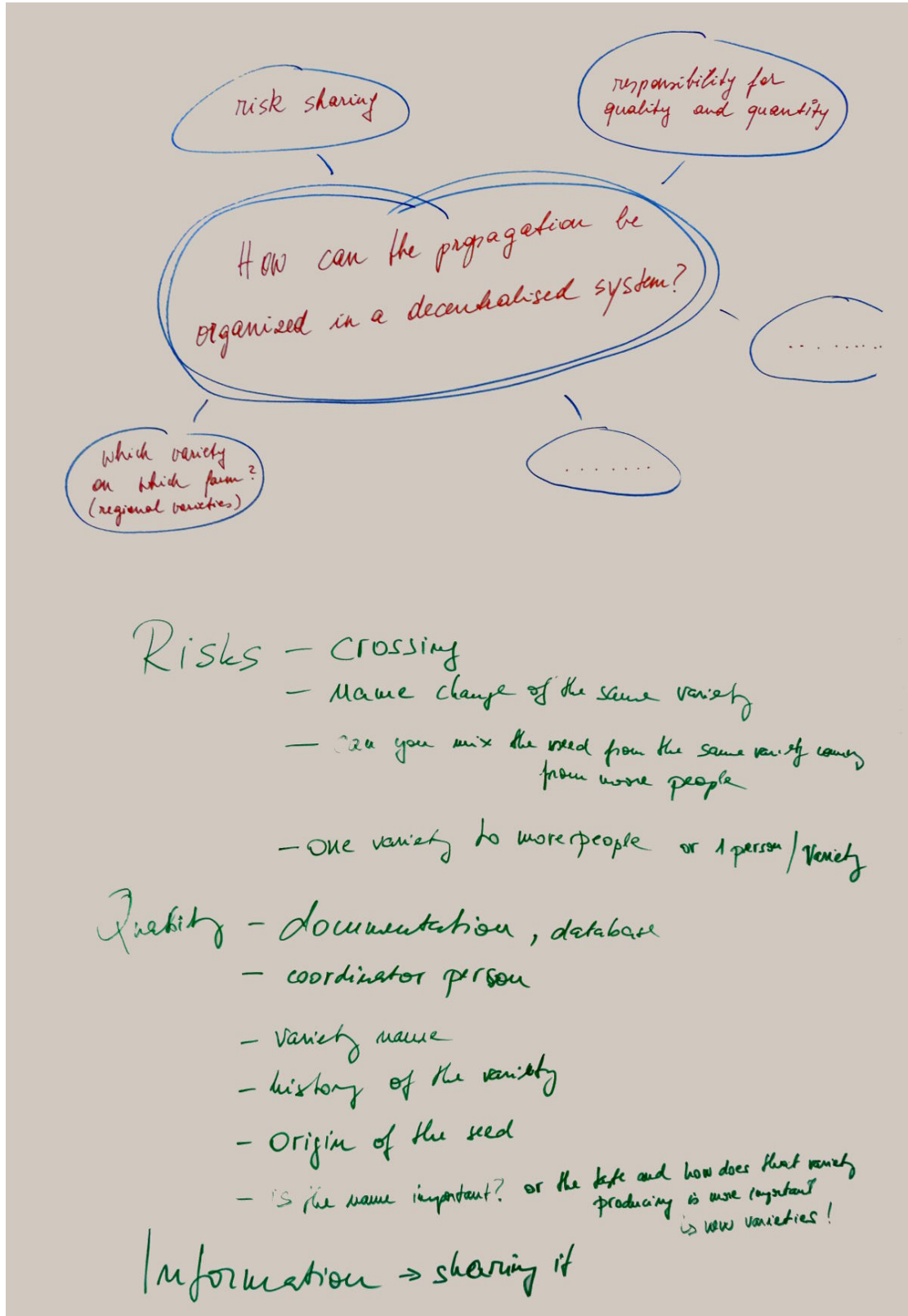
- Common risk sharing (risk of losing a variety)
- Broadening the gene pool



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Problems:

- Same variety under different names
- Different level of skills and knowledge (lack of skills and knowledge) for propagation and use

Documentation: (yes/no? + which kind of documentation)

- of varieties
- of history
- Memory banking
- Amounts (produced + available)
- Problems, experiences gained

3 How can the distribution be organized in a decentralised system?

Packaging:

- Farmers send big quantities ⇒ packaging centralised ⇒ small packages

Quantity:

- Listed? ⇒ big quantities ⇒ have to be a registered and additional maintenance breeder
- Not listed / Amateur var. (less restrictions) ⇒ small quantities

Quality management:

- Swap direct – commercialisation
 - know the grower ⇒ confidence
 - less need of control
 - communicate the quality even if it does not follow standards
- Follow standards
 - germination test 70%
- Individual farmer
- Together in an organisation
 - Biau-Germe, Arche Noah, connect farmers
 - document varieties: – web – photos – book
 - * photos of the farmers: know them ⇒ people & plants & their stories

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Financing:

- Distribution to consumers (out of the participative system)
 - ⇒ small seed company ⇒ sell not registered varieties ⇒ association
 - ⇒ pays producers for conservation, not for the seeds
- The participative group does production and commercialisation
 - ⇒ allows Fair trade
- How the work of the process is paid:
 - production – processing – quality package
- NGO ≠ public financing (taxes)
 - NGO: membership ⇒ receive seeds ⇒ donation
- Crowd funding
 - social media

Where to have the legal seat?

- Legal conditions are different ≠ nation

Distribution of seeds in a farmers group

- Farmers get paid for the work, not for the seeds

4 How can seed quality be assured?

Seed health:

- "Standards" – best practices for seed production
- Standards on processing
 - drying (if too dry ⇒ too hard coats ⇒ germination problems)
 - cleaning
 - germination rate
 - variety pureness
- Seed quality begins with cultivation
- ⇒ Storage
- Treatment
 - hot water bath ⇒ fungi ⇒ – equisetium tea – garlic & allium water (Nicolás)
 - hot water steam (Franziska AN uses)
- Knowledge



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- Adequate location for propagation (for sanitizing) ⇒ e.g. potatoes in Scotland
- Viruses – difficult, only with UV – visual tasting in early stages of beans
- Other plant propagating material
 - e.g. potatoes – problem: 10kg for virus tests

Storage:

- Important to have them very dry in the glasses, if not tissues is better (they breath), air must be dry
- Backup storage! – frozen!

Germination:

- Standards (not regulated seed standards)
 - e.g. 100 seeds (HSL), 33 seeds (Biaugerme) – incubator
- Are test results reliable? (without soil)
- Tests centralized *versus* shared in group, everybody takes a species/variety
- Difficult to find time to do
- Problem: sometimes small amounts

Quality:

- Pureness
- Culinary qualities ⇒ development of testings
- Health / vitality

Seed process:

- Cultivation standard what kind of crop is growing
 - Cultural background
 - Guidelines cultivation
 - Guidelines for harvesting
 - Description of variety
 - Standard for germination
 - Specialist for seed production (farm)?
 - Feedback for seed quality
- Seed standards depend on the farmer use
 - seed production – plant production – sales – dump
- Growing and variety breeding on
 - taste – growing standards – agricultural standards

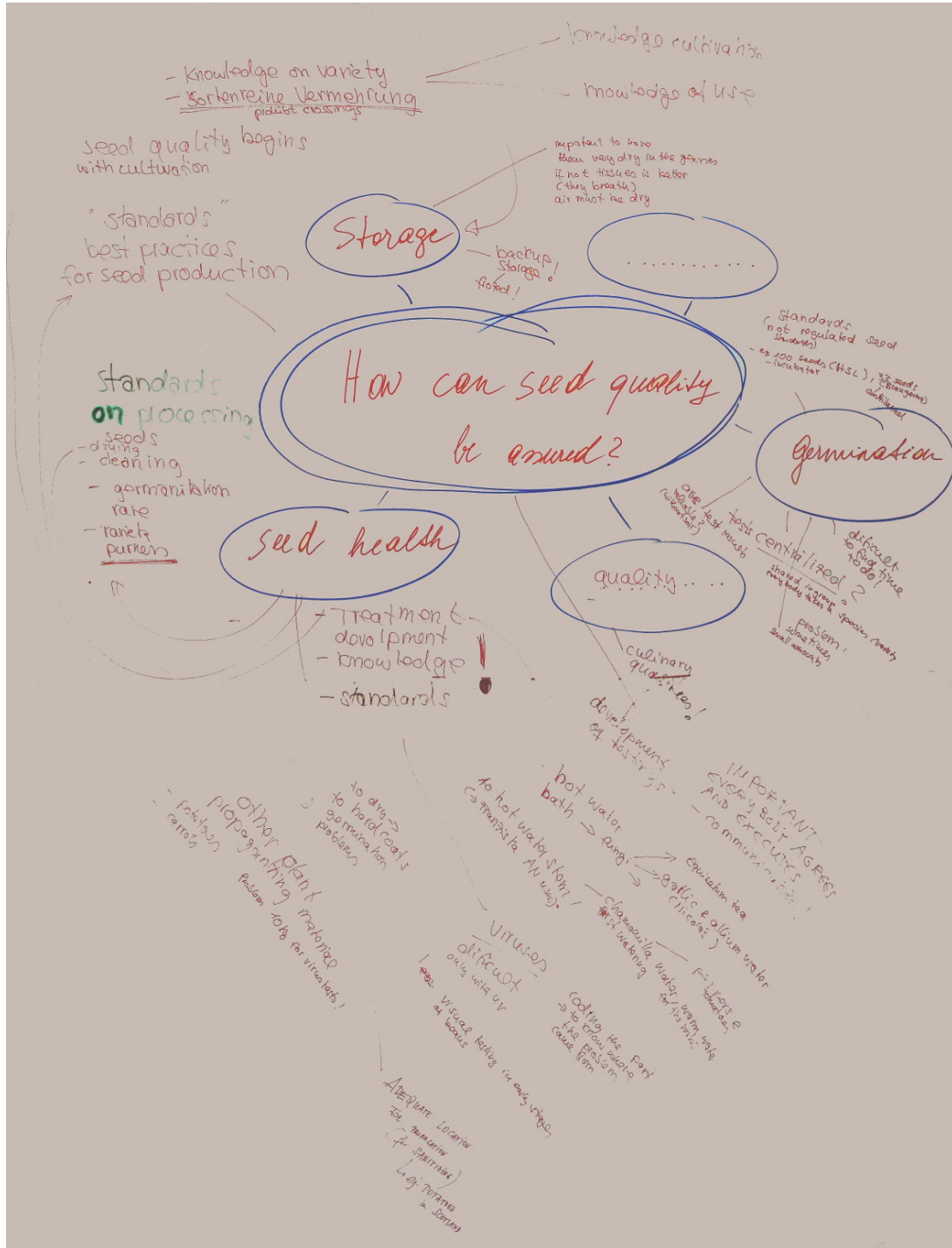
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- Conserving varieties
- Getting new varieties
- Frozen backup storage
- Same standards for germination in the group
- Standards for drying and cleaning are defined by the crop
- Educational work for the labours who are working with the seeds ⇒ technical processing
- Standards for the process in seed production should be standard in every group ⇒ local/national ⇒ in future european?
- Testing for virus, fungi and bacteria should be on an european level ⇒ possible?
- Central testing of germination could save costs, even the seed cleaning is also on one place
- Backup storage for illness of the seed in future ⇒ timeline for illness

5 Organisational structure of the group

Definition of goals:

- Exchange (information, experience, seed production)
- Common investments
- Division of labour
- Seed/variety saving – breeding
- for financing
- political work

Examples for structures:

- France: regional groups, they meet in national meetings
- Association
- CSA for seeds
- Loose group – working rules
 - effective communication ⇒ depends on regional position and on the size of the group
- Tasks sharing in the group
- Best structure: Depends on human resources – from their hearts. Listen to



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others – education – So it’s not your variety, it’s ours!

How are decisions made?

- Members bearing (taking over) a risk (money, work, resources)
- In groups within the guidelines: Consensus or majority decision
 - consensus: depending on the importance of the decision
- Decisions by: – only farmers – every member – consensus/majority

Farmer or scientist initiated:

- Members of group: – farmers – persons (private) – associations
 - scientific bodies (common work depending normally on the persons)

Location and size of the group

- Regional groups
 - preparing suggestions for the big group meetings
- Working groups
- Groups for special topics
- Regular workshops EU-wide for seed work