

From practice to science and back

– knowledge and information chains

in PRODIVA

Gerowitt B., Hofmeijer, M.A.J.

Melander, B., Sonderskov, M.

Krawczyk, R., Kaczmarek, S.

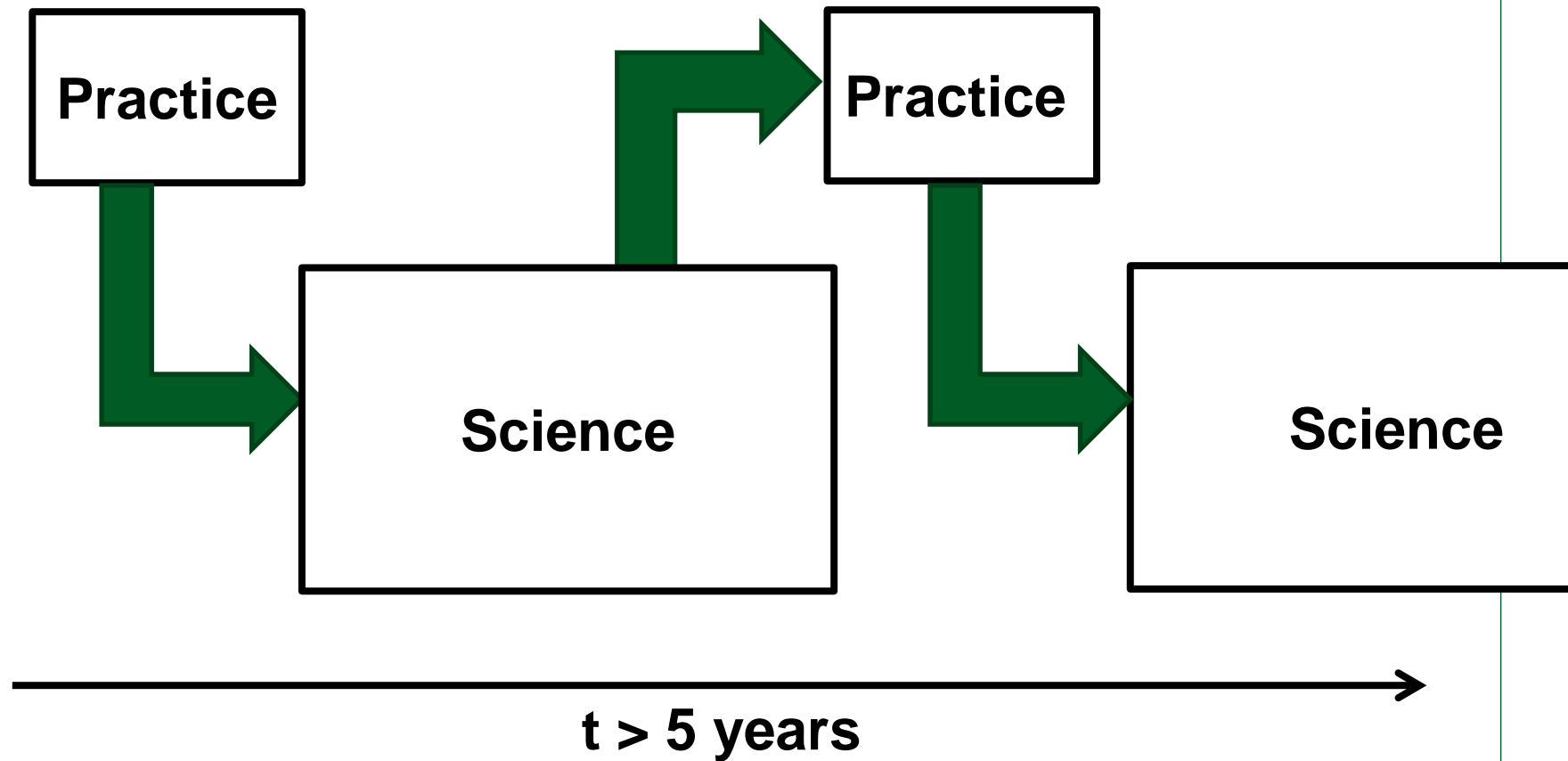
Salonen, J.

Verwijst, T., Lundqvist A.

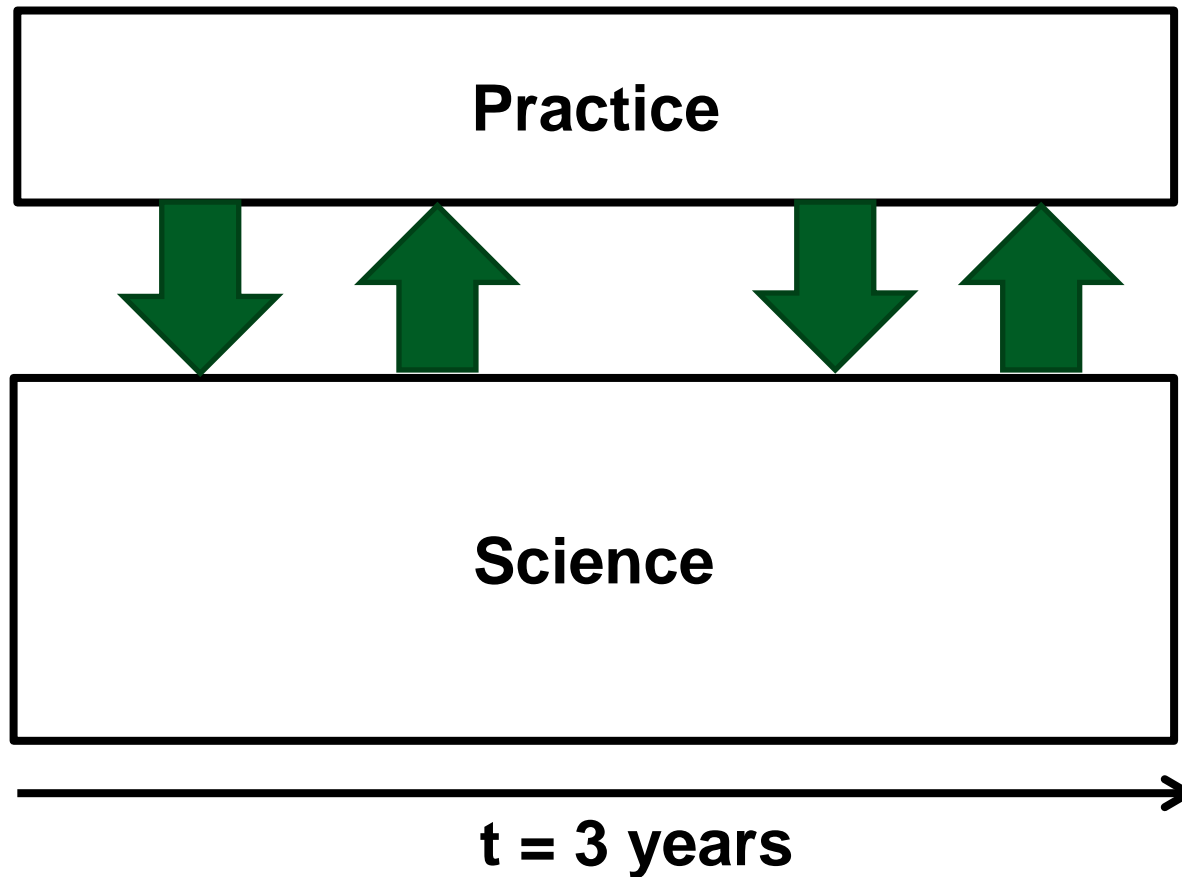
Zarina, L.

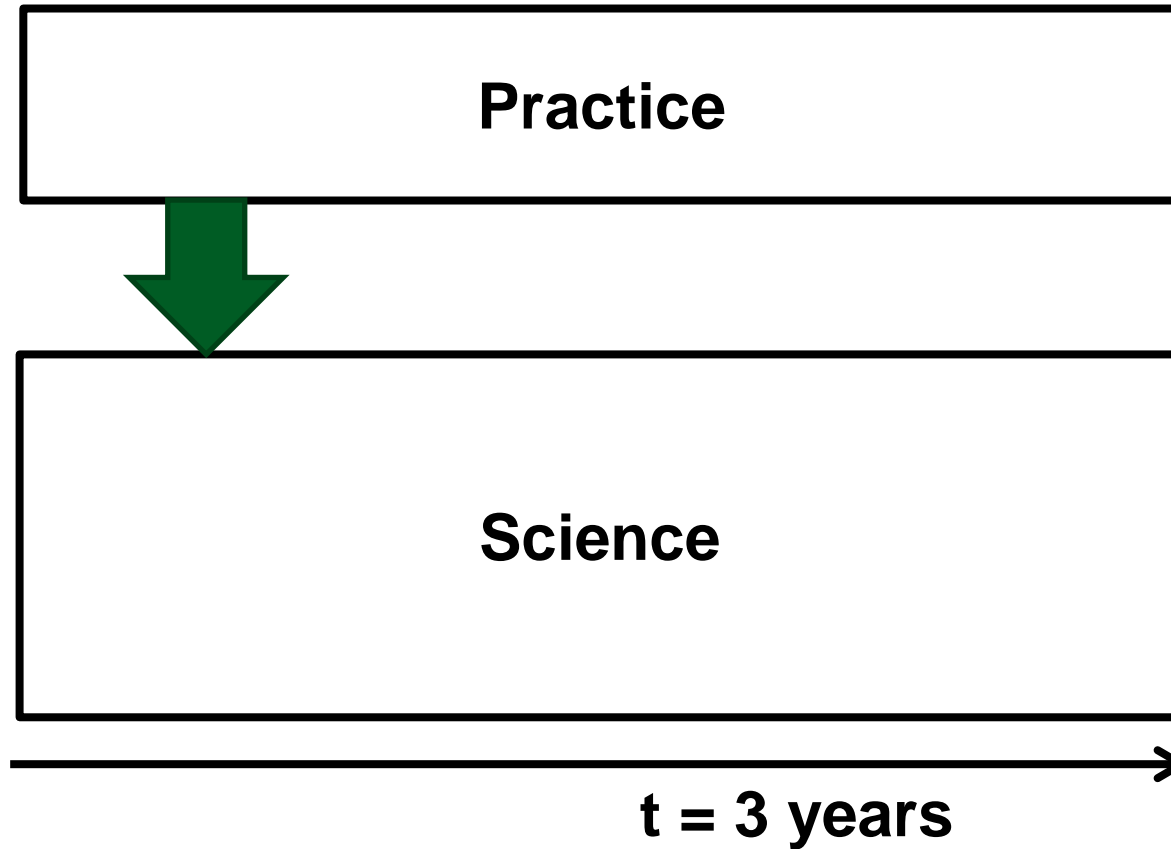


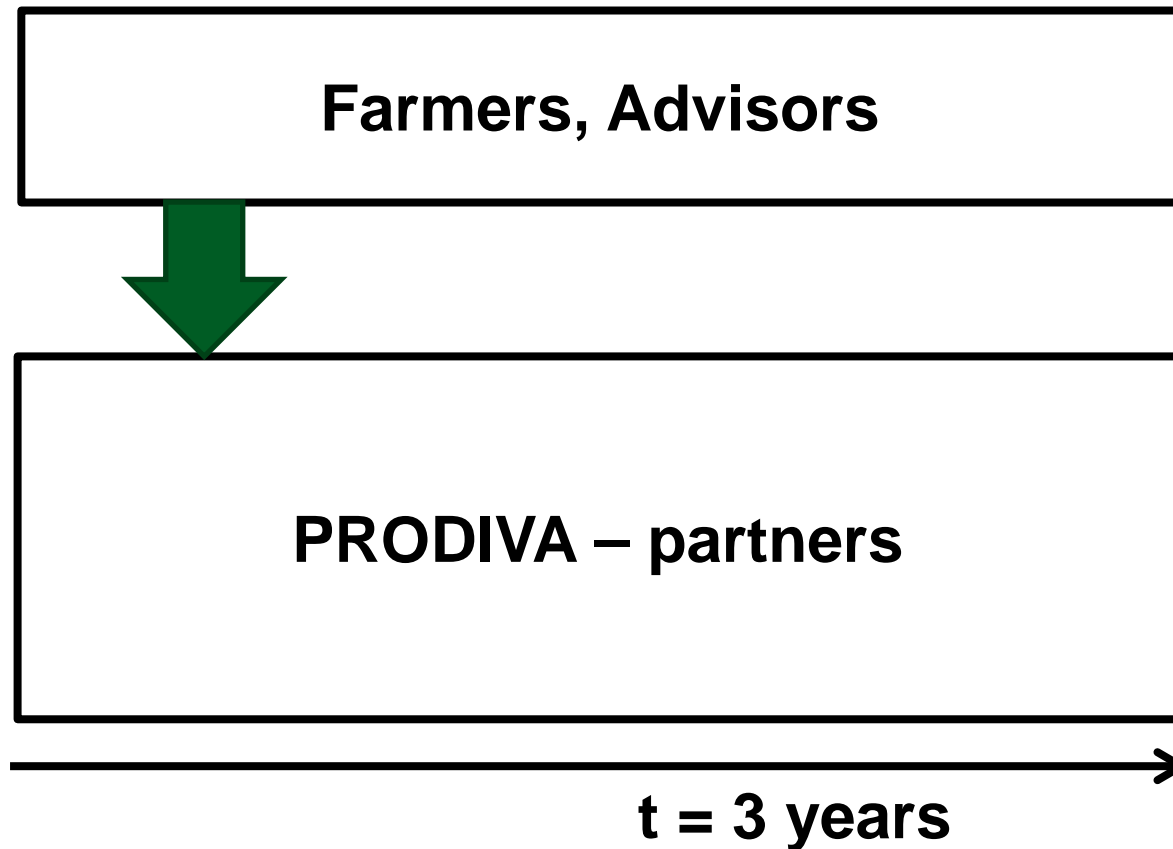
In an ideal world

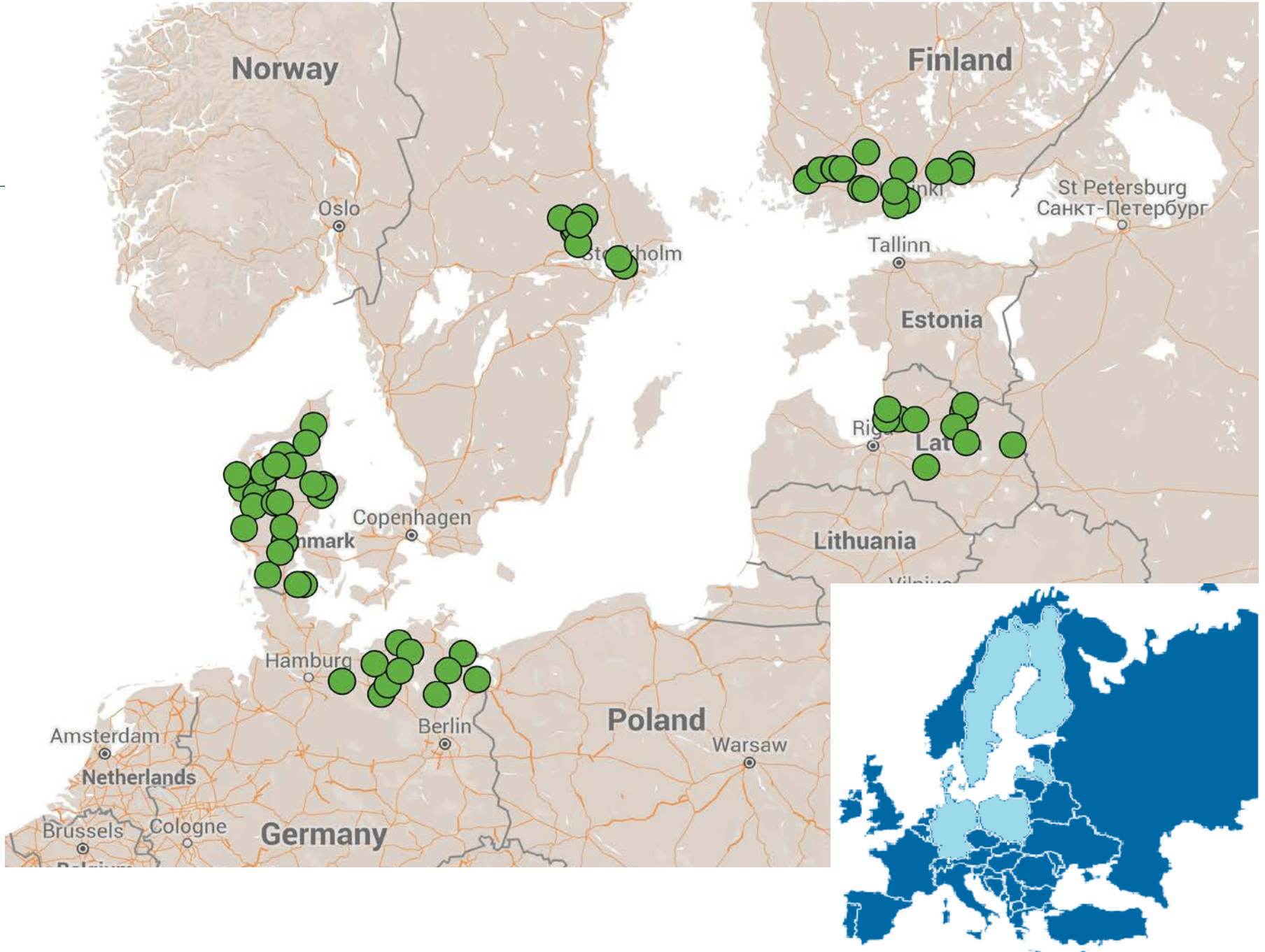


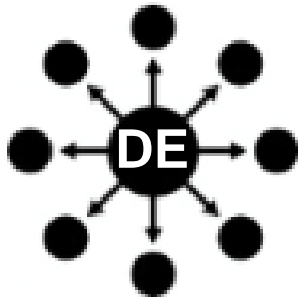
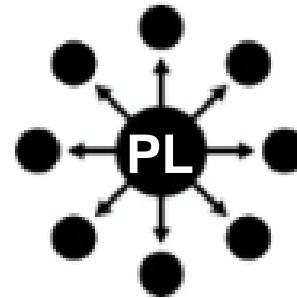
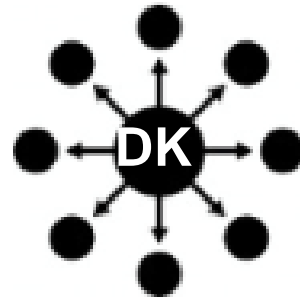
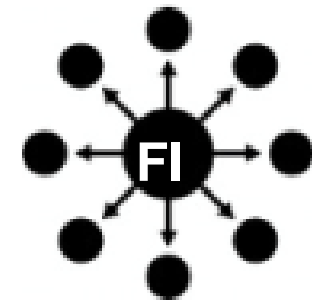
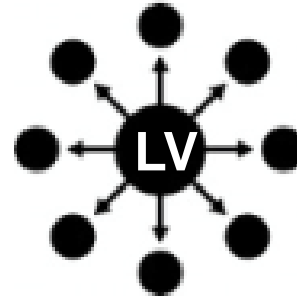
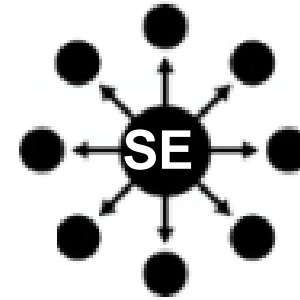
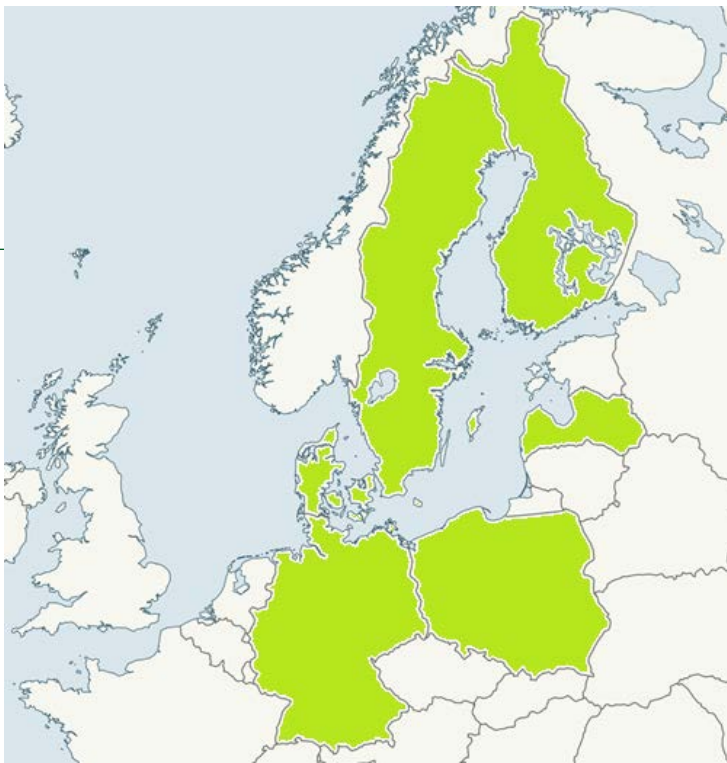
In the real world











- Center – Experts
- advisors and experts
 - private, certifying org.,

Expert database

- Expertise about important weeds
- Search in national scientific and grey literature
- Top weed species of each region

Weed groups for
stakeholder communication

Weed type names

Inspired by



Prof. Dr. Wolfgang Holzner

Weed types

Annuals

Bodybuilders a lot of biomass competitive

Early birds quick in spring, flexible and opportunist competitive

Plebeian mostly not very competitive

Perennials

Zombies persistent and resilient, hard to control and strong competitors

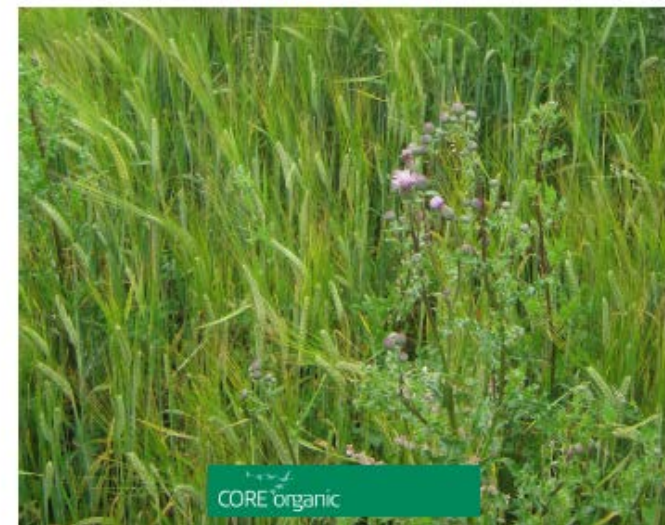
Grassland common weeds in grassland systems

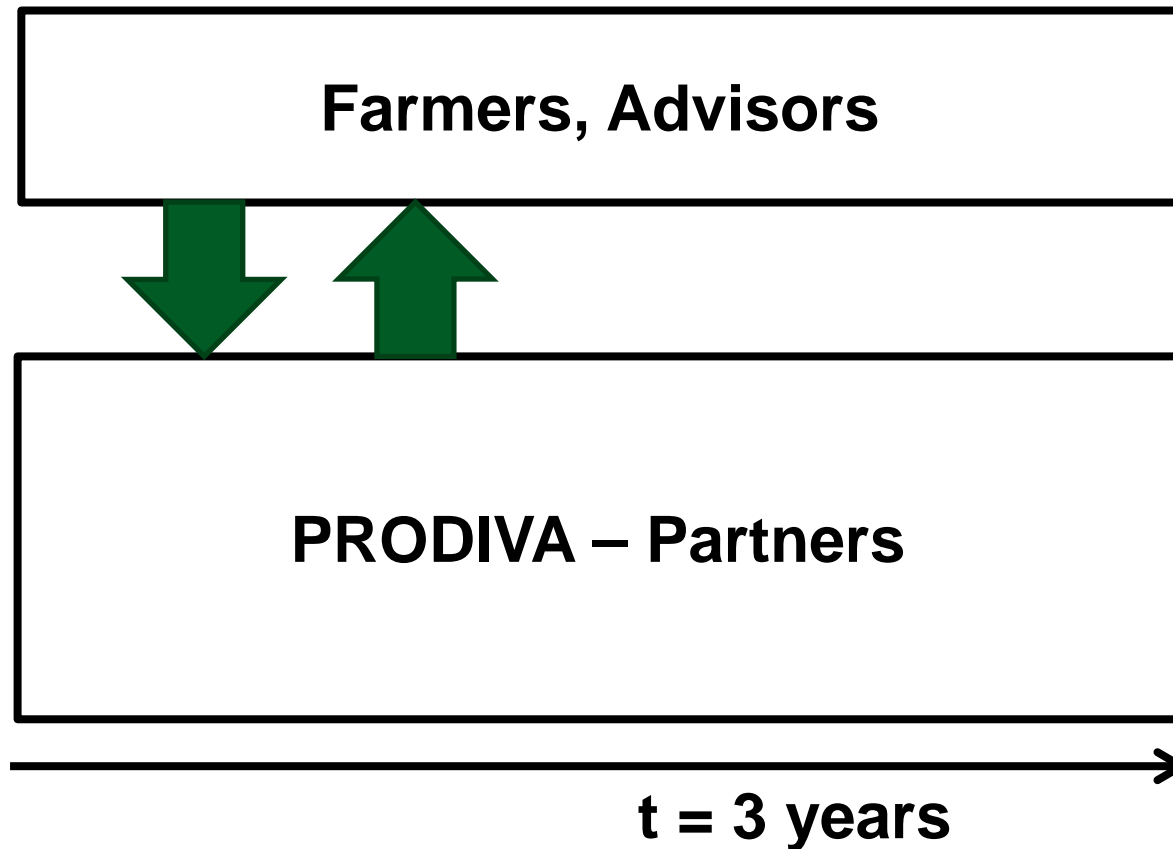
Latin Name	DE	DK	SE	FI	LV	PL	Weed type
Chenopodium album	x	x	x	x	x	x	Bodybuilder
Polygonum spp.	x	x	x	x	x	x	Bodybuilder
Centaurea cyanus	x	x	x		x	x	Bodybuilder
Galeopsis spp.		x	x	x	x	x	Bodybuilder
Raphanus raphanistrum	x					x	Bodybuilder
Sinapis arvensis		x	x				Bodybuilder
Galeopsis tetrahit			x			x	Bodybuilder
Alopecurus myosuroides	x						Bodybuilder
Avena fatua				x			Bodybuilder
Brassica rapa camp.		x					Bodybuilder
Stellaria media	x	x		x		x	Early bird
Galium aparine	x		x			x	Early bird
Matricaria inodora		x				x	Early bird
Apera spica-venti	x				x		Early bird
Lamium purpureum				x	x		Early bird
Viola arvensis				x	x		Early bird
Anthemis arvensis						x	Early bird
Papaver rhoeas	x						Early bird
Galinsoga parviflora						x	Early bird
Thlaspi arvensis			x				Early bird
Spergula arvensis			x	x			Plebeian
Erysimum cheiranthoides				x			Plebeian
Fumaria officinalis					x		Plebeian
Anchusa arvensis	x						Plebeian
Matricaria discoidea			x				Plebeian
Myosotis arvensis				x			Plebeian
Veronica arvensis					x		Plebeian
Amsinckia micrantha		x					Plebeian
Elytrigia repens	x	x	x	x	x	x	Zombies
Cirsium arvensis	x	x	x	x	x	x	Zombies
Equisetum arvense		x	x	x	x	x	Zombies
Sonchus arvensis		x	x	x	x		Zombies
Rumex spp.	x		x	x			Zombies
Tussilago farfara		x	x	x			Grassland
Ranunculus repens			x	x			Grassland
Taraxacum officinale			x	x			Grassland
Artemisia vulgaris		x			x		Grassland



Geographical distribution of challenging weed species

Current knowledge in organic arable farming
in the Baltic sea region





In an ideal world

...we would understand each other
immediately



Geographical distribution of
challenging weed species



Current knowledge in organic arable farming
in the Baltic sea region



In reality



EWRS

The Society has also prepared the following glossaries:

- Williams, G.H.; 1982. Elsevier's dictionary of weeds of Western Europe: their common names and importance in Latin, Danish, German, English, Spanish, Finnish, French, Icelandic, Italian, Dutch, Norwegian, Portuguese and Swedish. Elsevier, Amsterdam. ISBN 0-444-41978-0. 320 pp.

- Williams, G.H.; Hunyadi, K.; 1987. Dictionary of weeds of Eastern Europe: their common names and importance in Latin, Albanian, Bulgarian, Czech, German, English, Greek, Hungarian, Polish, Romanian, Russian, Serbo-Croat and Slovak. Elsevier, Amsterdam. ISBN 0-444-98969-2. 479 pp.

In the last issue of each volume of its journal *Weed Research*, the Society publishes "Glossary of common names and abbreviations of herbicides", taken with permission of CAB International from *Weed Abstracts*.

Interdisciplinary dictionary of weed science:

Dansk; Deutsch; English; Español; Français;
Italiano; Nederlands; Portugues

G.H. Williams & W. van der Zweep (Editors)

language consultants:

G. Barralis (French); P. Catizone (Italian); Th. Eggers (German);
I. Moreira (Portuguese); J.C. Streibig & E. Poder (Danish); C. Zaragoza
(Spanish)

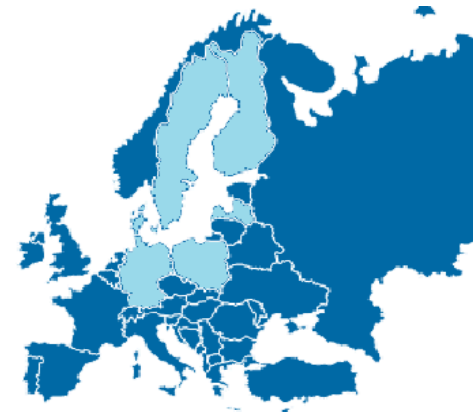


Pudoc Wageningen 1990

Internal communication: English

Stakeholder communication:

- Danish
- Finish
- German
- Latvian
- Polish
- Swedish



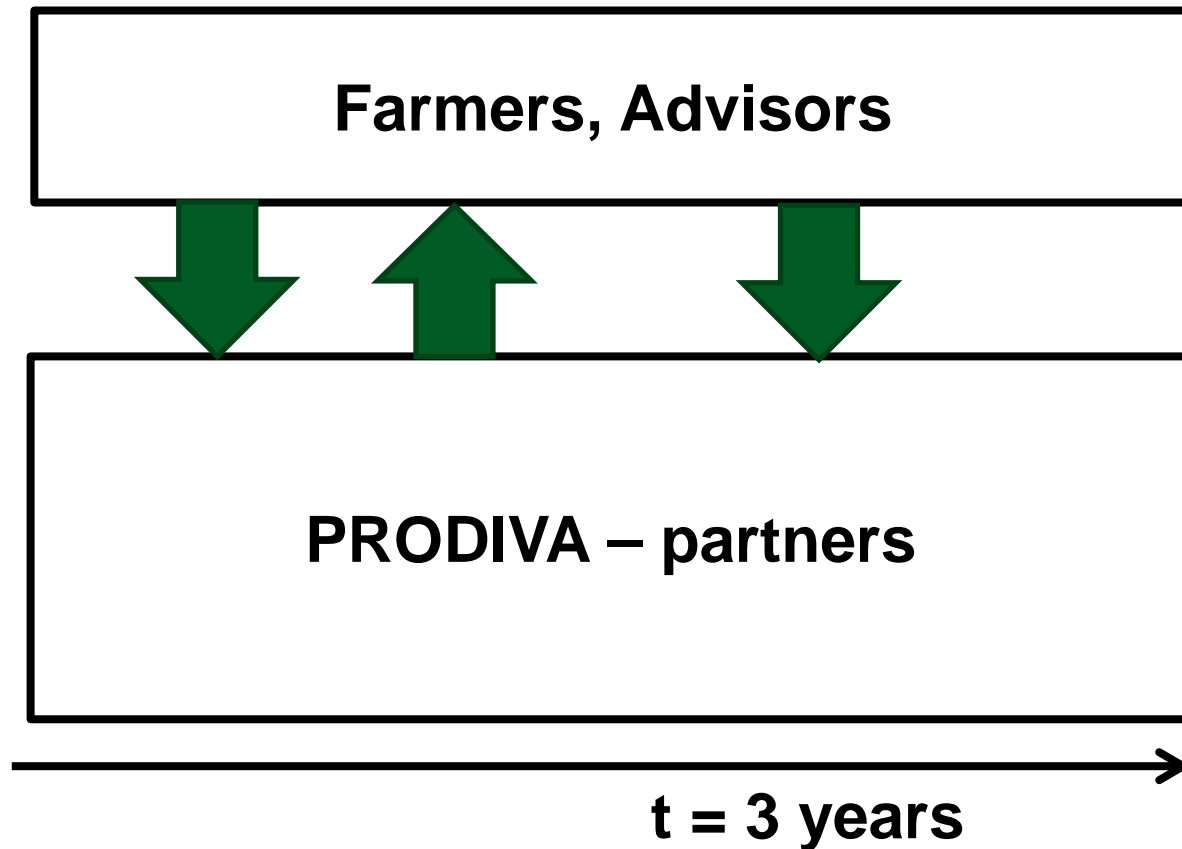
- Weed names collection in seven languages

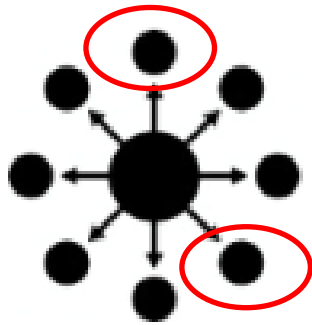


Distributed to farmers and advisors

Presented at national conferences and stakeholder meetings

<http://orgprints.org>





„Success stories“

Farmers network

Knowledge from farmer to farmer



Efterafgrøde bestående af selvetableret kløvergræs



Esa Heinonen odotteli maltilla timotein puintia. Kuva: Jukka Salonen

Familie Voss – Öko-Hof Voss – Jamitzow



„Farm-o-graphics“
Fix questions about
- crop diversification,
- weed management
- and attitude to weeds

Success stories on-farm cropping systems

Crop diversification – much more than weed management!

(diseases, pests, yield, lodging, risk reduction,)

Weed management – much more than crop diversity!

(mechanical control, thermal control)

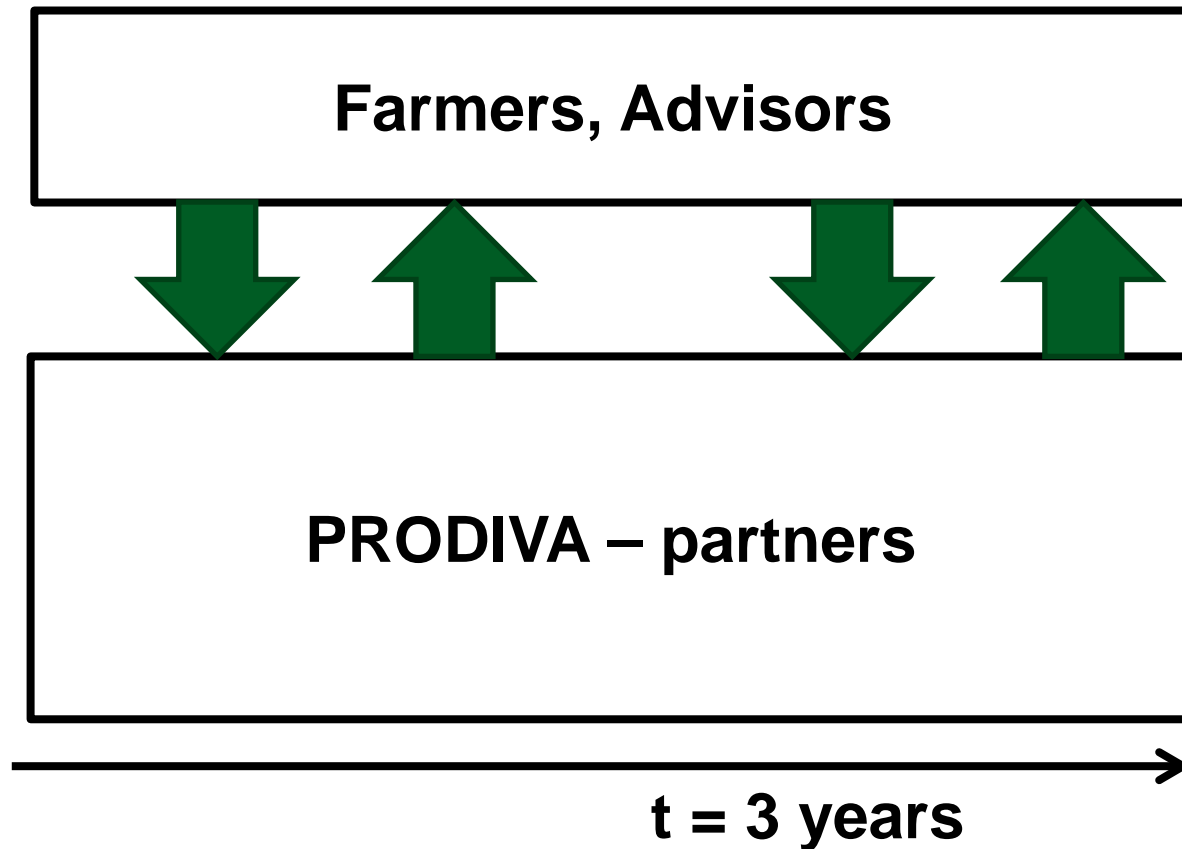
Crop diversification and weeds – succes stories

	Crop Divers.	Weeds	Quotations
FI	crop sequence, legume cover crops	RUMSS, CIRAR, SONAR	improve the soil, no open space
SE	long rotation, undersowing	SINAR, CHEAL, STEME, CIRAR, FUMOF, AGGRE	design the rotation to your weeds
LV	undersown cc rotation	VICSS, CHEAL, VIOAR	cooperate but be tricky use for marketing
DK	rotation with perennials	RUMSS, CIRAR	delayed sowing, grass-clover mowing
DE	undersown cc rotation, fodder	CIRAR, AGGRE, RHAPA, PAPRH, CENCY, CHEAL	demand for patience, honeybee food

Farmers experience

Rotational aspects >>> Crop mixtures > Variety mixtures
(Zombies, Bodybuilders, Early Birds)

Biodiversity in weeds is valued or at least tolerated



Crop diversity

Weeds

Rotational aspects

STEME, MYOAR, VIOAR
VIOAR, STEME, CHEAL
AGRRE, CIRAR

from no to good
suppression

Crop mixtures

AGRRE, CIRAR
MATSS, CHEAL
AGRRE, SINAR

from no to good
suppression
partners!

Variety mixtures

SINAR, VIOAR
CHEAL, POLCO

little weed
suppression

Rotational aspects, Crop mixtures > Variety mixtures

(Bodybuilders, Early birds, Zombies)


Future challenges

Farmers, Advisors

PRODIVA – partners

- Longer experiments
- Crop sequences/
management
- Diversity/management
- „Zombies“
(creeping perennials)

Thanks!

- All farmers, advisors, experts in the PRODIVA-countries
- Era-net  for financial support
- Merel Hofmeijer for „practical artwork“