



Bern University
of Applied Sciences

Den Europæiske Landbrugsfond for Udvikling af Landdistrikterne:
Danmark og Europa investerer i landdistrikterne

LDP 2020



Den Europæiske Landbrugsfond
for Udvikling af Landdistrikterne



Miljø- og Fødevareministeriet
NaturErhvervstyrelsen

Se EU-Kommissionen, Den Europæiske Landbrugsfond for Udvikling af Landdistrikterne



RISE 3.0 Bæredygtighedsanalysen

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- School of Agricultural, Forest and Food Sciences HAFL

Indledning

Dagens mål

Deltagere

Goals of this workshop

By this evening, participants will...

- ▶ ... be able to utilize the new features and possibilities offered in RISE version 3.0;
- ▶ ... be informed about the possibilities of adapting RISE 3.0 themes, indicators and calculations to the Danish context;
- ▶ ... have had their say on their personal RISE experiences and on their suggestions for changes in method and software.

Introductory round



The RISE method

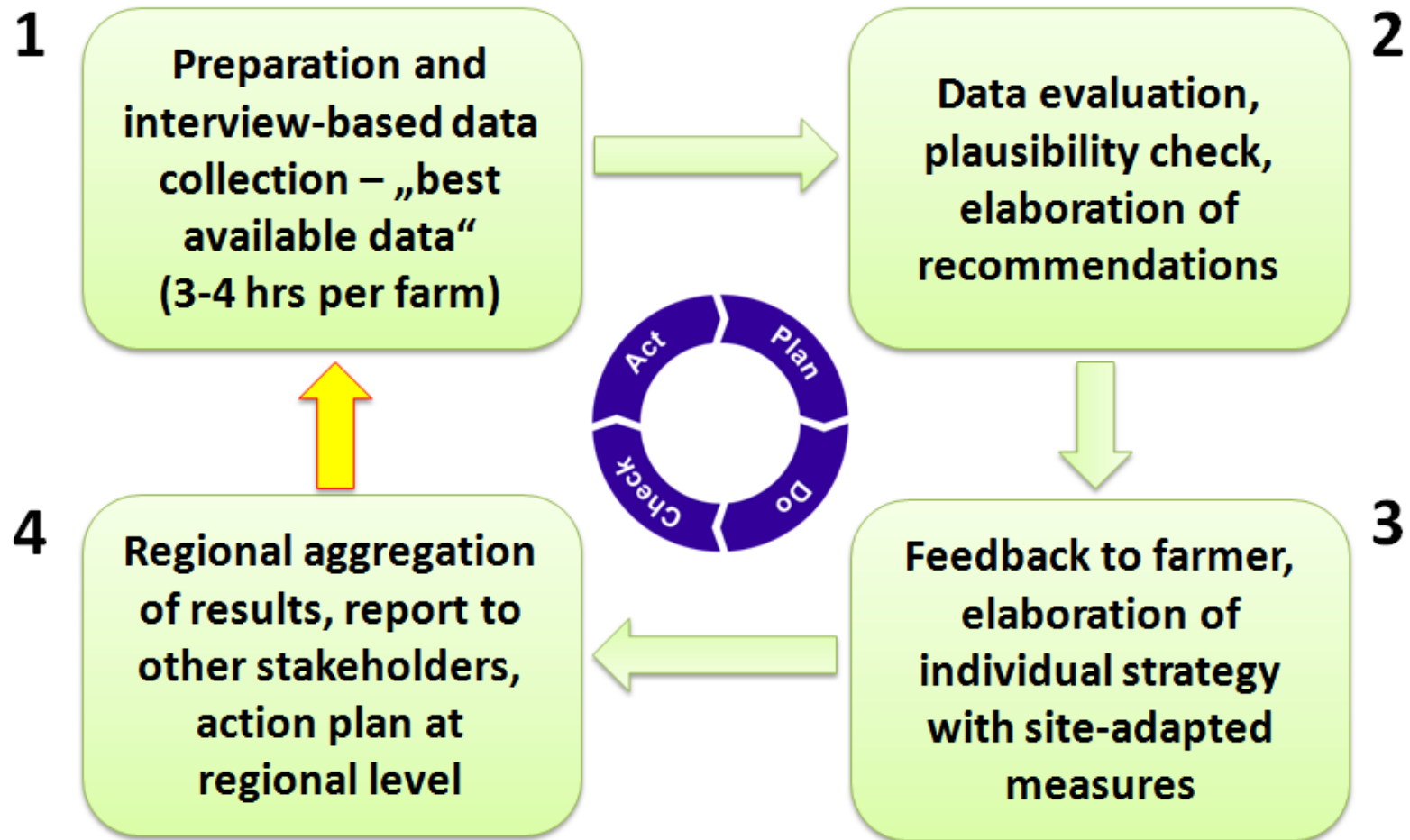
Refresher on RISE basics

RISE is...

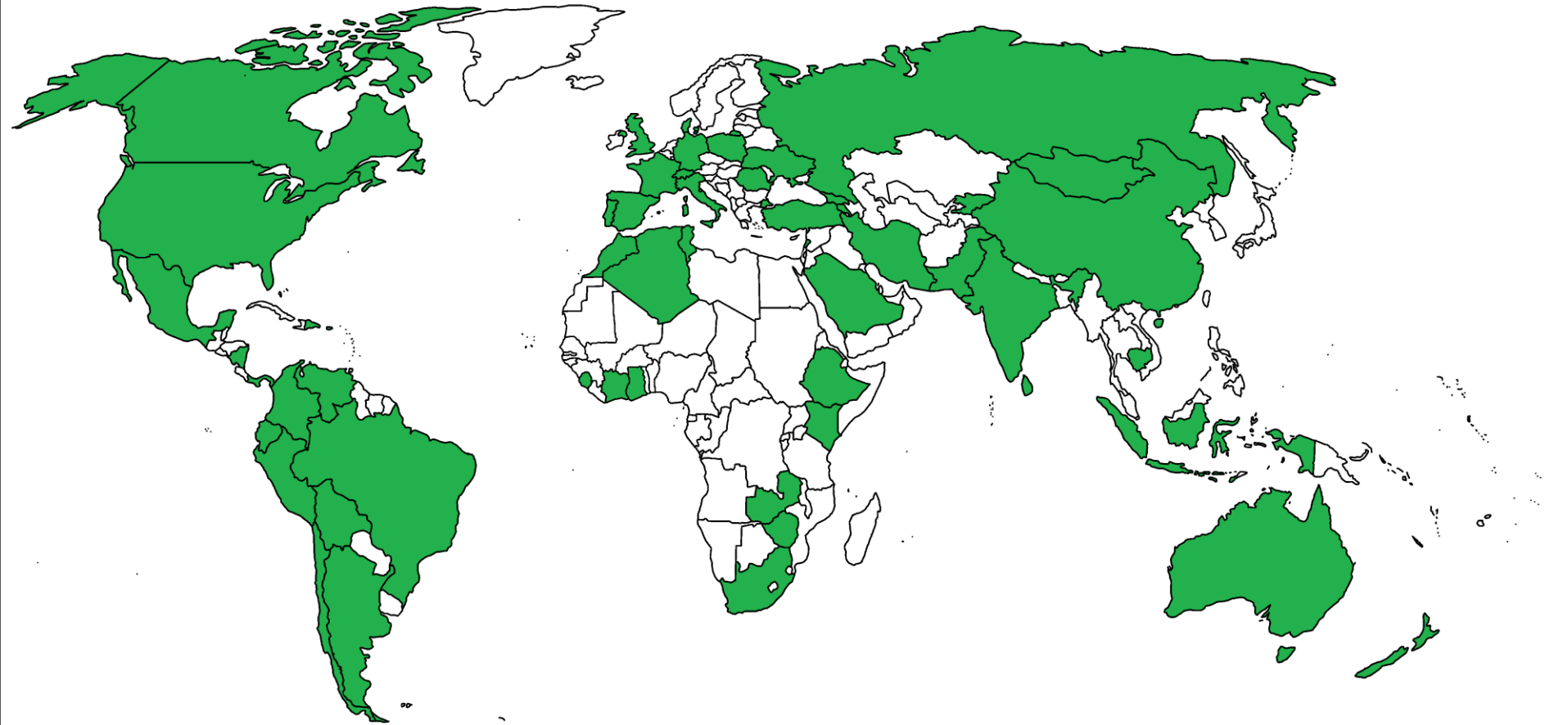
- ▶ 1: A method facilitating a rapid and holistic **evaluation** and **communication** of the sustainability of agricultural production at the farm level.
- ▶ 2: Attempting to make sustainability better **comprehensible**, **tangible** and **measurable**.
- ▶ An ensemble of **indicator system**, **science-based algorithms**, **database** and **software**.
- ▶ “*RISE is like a mirror of my farm.*” (a farmer)
- ▶ “*RISE is my key to the farm*” (farm advisor from FiBL. Hans egen bedrift var ikke så bæredygtig som han havde forventet. Men så prøvede han RISE på andre bedrifter.)
- ▶ „*RISE conveys the idea of sustainability to farmers.*“ (an official of the Swiss Federal Office of Agriculture)

The RISE process

Data collection – Evaluation – Feedback discussion



Applied on more than 2500 farms in 54 countries...



...by and with a variety of partners...

— GEBERT RÜF STIFTUNG —
WISSENSCHAFT.BEWEGEN

KFH

Rektorenkonferenz der Fachhochschulen der Schweiz
Conférence des Recteurs des Hautes Ecoles Spécialisées Suisses
Conferenza dei Rettori delle Scuole Universitarie Professionali Svizzere
Rectors' Conference of the Swiss Universities of Applied Sciences

FN-SNF

SCHWEIZERISCHER NATIONALFONDS ZUR
FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Bundesamt für Umwelt BAUF



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Direktion für Entwicklung
und Zusammenarbeit DEZA



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Eidgenössisches Departement für
Wirtschaft, Bildung und Forschung WBF
Bundesamt für Landwirtschaft BLW

INFORAMA
BILDUNGS-, BERATUNGS- UND TAGUNGSZENTRUM

FiBL

Forschungsinstitut für biologischen Landbau
Institut de recherche de l'agriculture biologique
Research Institute of Organic Agriculture

EXCELLENCE FOR SUSTAINABILITY

International Livestock Research Institute

Better lives through livestock



syngenta
GLOBAL



ETH

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

CARD
center for
agribusiness &
rural development



Universität Zürich

zhaw

HOCHSCHULE
RHEIN-WAAL
Rhine-Waal University
of Applied Sciences

UNIVERSITÄT HOHENHEIM



iisd

International
Institute for
Sustainable
Development

Institut
International du
Développement
Durable



... in a variety of contexts

Since

▶ Upstream supply chain management

- ▶ Understand and improve the sustainability performance of agricultural suppliers (mostly to food companies).

2000

▶ Consultancy

- ▶ Provided predominantly to organic farmers, in Switzerland, Denmark and Germany. Vi er et universitet, vi laver ikke certificerings værktøj, det er ikke vores opgave.

2008

▶ Education

- ▶ Modules at BSc and MSc levels at HAFL and other universities, about 50 term papers and theses written.

2009

▶ Training

- ▶ RISE users, mostly staff of food companies and ag consultants, complete a theoretical (5 days) and practical (5 farms) training. Ved at lave RISE lærer køberne i Mexico og Brazil meget om

2011

Ongoing and upcoming projects

Projects 2015-2016

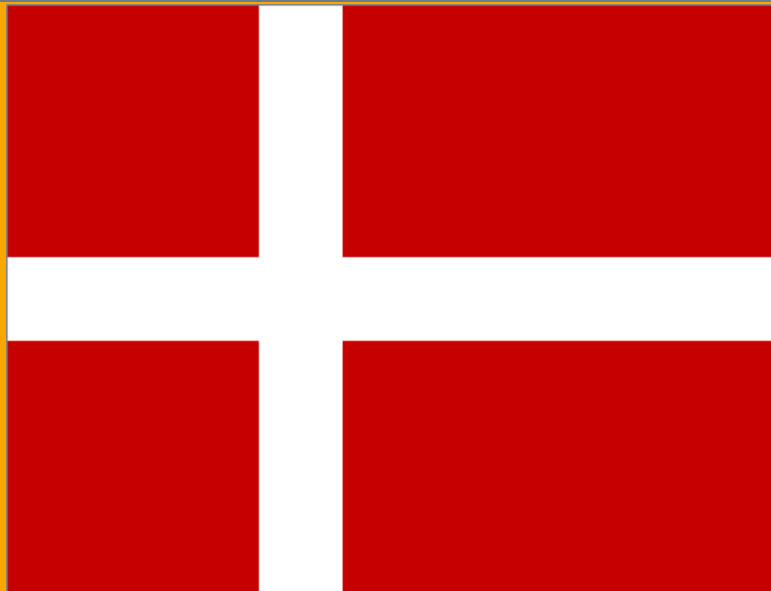
- ▶ “RISE 3.0 project” = software overhaul and optimization to consultancy conditions in Germany (FibL, Bioland) and Switzerland (FibL, Bio-Suisse). Project likely to be extended in 2016 => direct import of German accountancy data. Der er en formattering i Tyskland CSV-format, comma-separated excel, (men skal man ikke alligvel kigge i årsrapporten for at se hvad der står?)
- ▶ Research projects in Switzerland, e.g. on consultancy at group level
- ▶ Farm consultancy by SEGES and MSc & PhD research at Aarhus University
- ▶ Seed money project (forprojekt) with ESALQ (Univ. of São Paulo, med meget forskellig situation fra her) – methodological adaptation and RISE in teaching
- ▶ Regular assessments of e.g. dairy farms in Mexico, on a fee-for-service resp. license basis. Mostly for Nestlé and Danone, minor mandates from other companies.
- ▶ RISE use in development projects of GIZ (German ODA agency), e.g. as baseline study in Tunisia, Zimbabwe, Ecuador.

Outlook

- ▶ Principle 1 of RISE development: support **farm- and farmer-centered** processes that aim at improving whole-farm performance.
- ▶ Principle 2 of RISE development: work with **independent, competent partners** who are firmly anchored in their country or region.
- ▶ Development of RISE projects over time:
 - Phase 1 = fee-for-service mandates => high quality, but costly and a lot of “consultancy tourism”.
 - Phase 2 = training courses and license arrangements => growing network, but time and budget issues (> quality!)
 - Phase 3 = **focus more on more on education and consultancy, more responsibility and freedom for partners**

RISE (2) i Danmark

Erfaringer
Ønsker



RISE 3.0 – The project (2013-2015)

Partners



Funding agencies



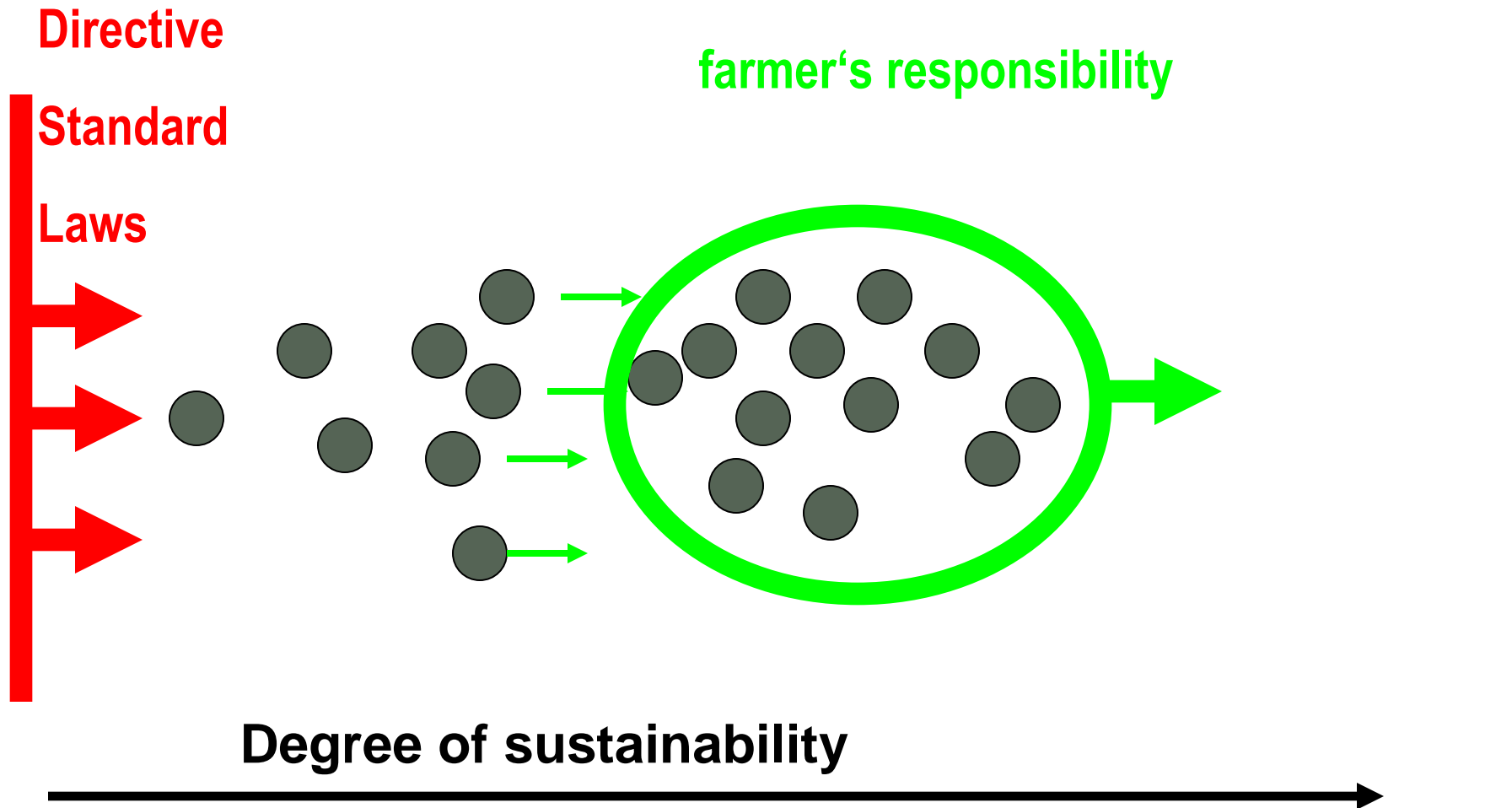
Bundesanstalt für
Landwirtschaft und Ernährung



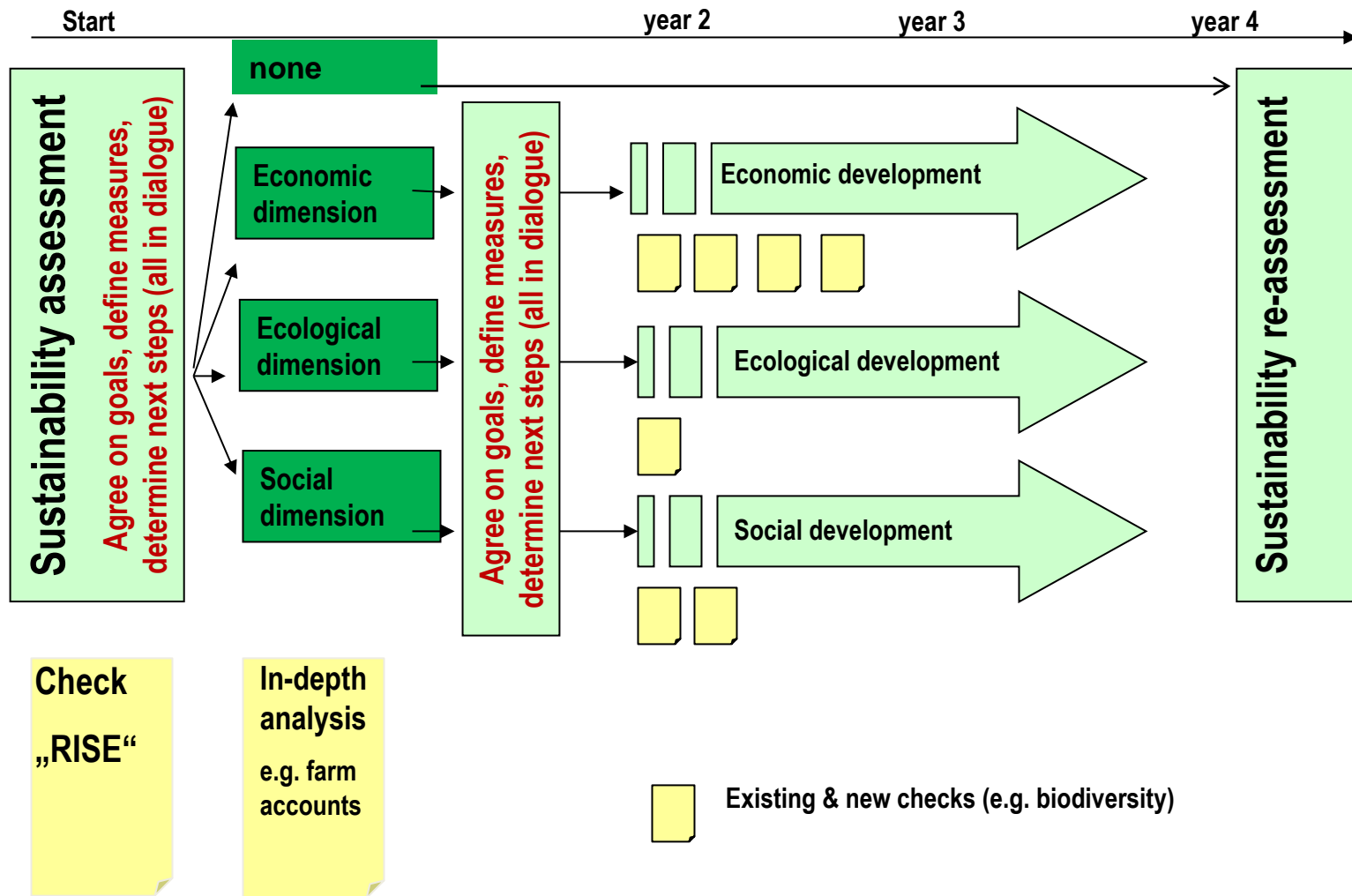
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Eidgenössisches Volkswirtschaftsdepartement EVD
Bundesamt für Landwirtschaft BLW

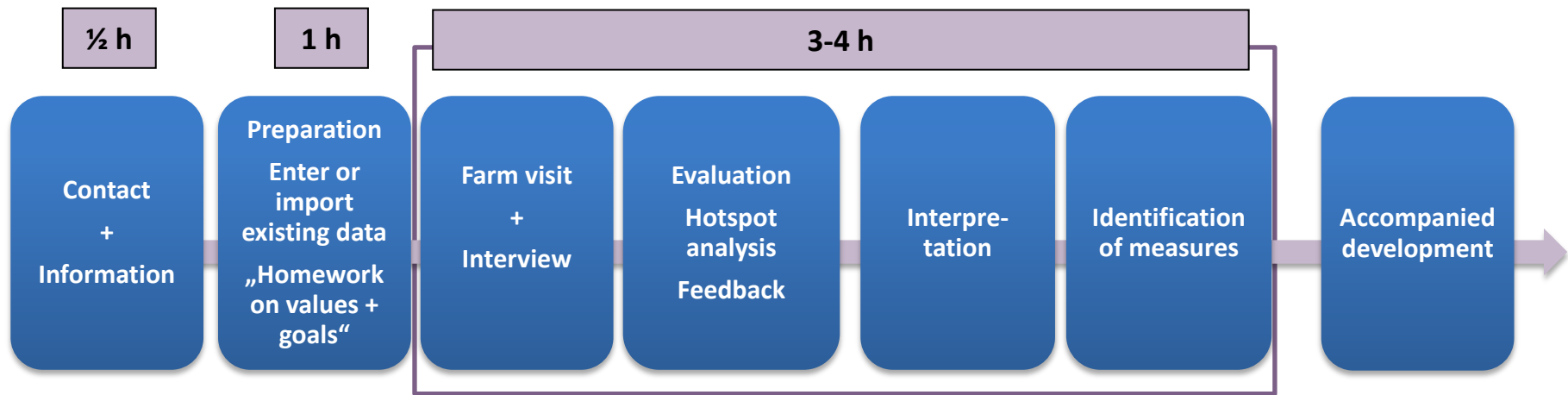
Project concept: Farm development – driven by directives & standards, or by the farmer?



Concept for holistic farm consultancy



Sequence and time budget of whole-farm check



- ▶ Time requirement is very variable. Experienced, competent consultants can keep the budget (“half day until next steps are defined”).
- ▶ Further acceleration is very much desired. BUT group consultancy for sustainability is tricky, and shortening data analysis and dialogue too much compromises the added value of the whole exercise.

2014: Defined need for adaptation in CH and D

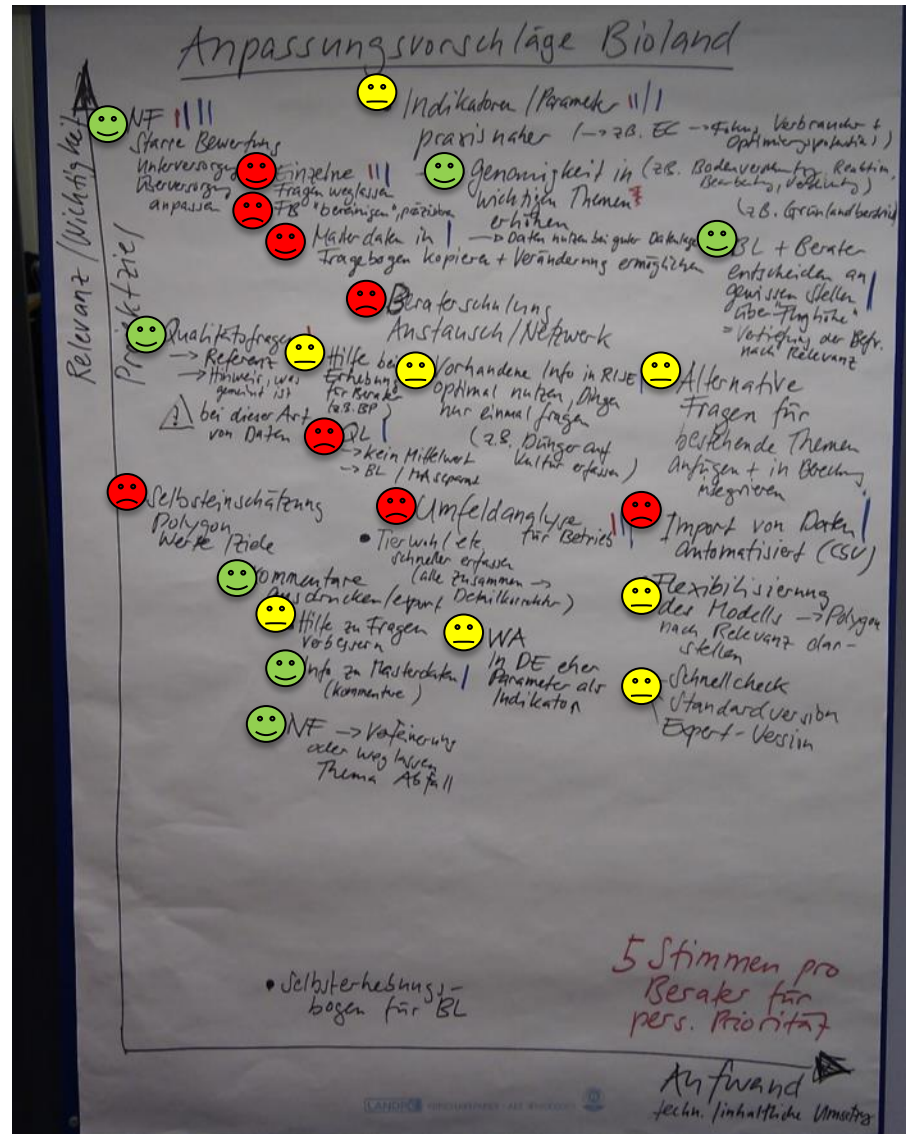
- > Einordnung Energieverbrauch (Hofladen, ...)
- > Biodiversität schwer zu beantworten
→ schwierig zu beraten → was empfehlen?
- > Anbausysteme unklar
- > Frage nach Flächen mit hohem Humusgehalt
- > Humusbilanzierung unklar
- > Anteil erneuerbare Energie schlecht (im ...)
- > Absolute Werte N-, P-, Humus im Analyseteil (kg)
→ Kennzahlen ± kg/ha
→ Rückmeldung Berater notwendig!
- > Schärfere Kriterien Anbau + Tierhaltung für Bio-Betriebe (weil sonst immer gut und keine Motivation für Verbesserung)
→ Direktengabe? oder Vertiefung?
- > Bewertung tiefer pH / Umgang mit vorhandenen Analysewerten
- > Lebensdauer / Lebensleistung Milchvieh
- > Formulierung neue Frage QL (Bach ...)

- > THG-Emissionen pro Produkt
Statt pro Fläche
→ Kennzahl oder Bewertung
- > Höchstens (4h) auf dem Betrieb (1h 2h 1h)
- > Anpassung EV an Deutschland
Harald → alles neu FTL → ok
→ Variante Deutschland
- > Abfall raus
- > Wasser optional für Tierhaltungsbereich + Bewässerung
- > Kooperation hat ein zu starkes Gewicht
- > Produktqualität (Tier/ Pflanze) weg
→ Alternative zu Leistungskriterien
→ in DE unklar → Briefting
→ Grundsatzfrage / Erklärung bringen
→ Kriterien anpassen Region → Berater
- > Versorgung + Ertragsstabilität
- > Wo kann noch abgekürzt werden?
Ziel 3-4h
- > Weiterführende Infos bereithalten
- > Verbesserungen an der Formulierung

Anforderungen (Biosuisse / FiBL)

- ✓ > Genaue Beschreibung / Hilfe für Direktengabe
- > Automatische Empfehlungen?
- ✓ > Kommentare kopieren / exportieren
- > Direktlink Kommentarübersicht zu Fragen
- > Flächen nur einmal erfassen
- ✓ > Performance Fragebogen
- > Liste mit Fragen die durch Gesetz + Label abgedeckt sind
→ Regionaldaten: CH/Bio → 14 Fragen weg
- > Wasser weg wenn keine Bewässerung
- > Abfall weglassen
- > Zusätzliche Fragen / Fach (Sicherheit)
→ Anteil Eigenland (Landrecht)
→ Stabilität, Risiko (EV)
→ Bevorzugte Betriebswege (EV)
→ Zusatzfrage Betriebswege (Fikun)
→ Frage: Was mache ich gerne (QL)
→ Typologisierung LW (FH) → Wo?
- > Projektfiler auf Winter speichern oder in "Übersicht" integrieren

RISE adaptation: Relevance, effort needed and priorities of Bioland consultants



“Punch lines” of consultant feedbacks

- (1) Consultants and farmers have site- and situation-specific priorities. => no «one size fits all»
- (2) Time and budget are strongly constrained, desires concerning the RISE outcome are not => trade-off. Der er afsat virkeligt små midler i D og CH til landbrugskonsulenter, så de landbrugskonsulenter der er, har virkeligt travlt.
- (3) I tyskland, hvis der ikke er støtte til en BD analyse, vil den ikke blive lavet.
- (4) I CH vil det koste 2-2,500 franc.
- (5) Nestlé gør det fordi det giver et comprehensive picture.
- (6) Danone gør det som a baseline for projects. Ukraine, brazil, tyrkey: hvilke emner skal vi fokusere på, når vi starter projekter?
- (7) Bæredygtighed er komplekst, hvis ikke man ser hele billedet så er det ikke bæredygtighed.

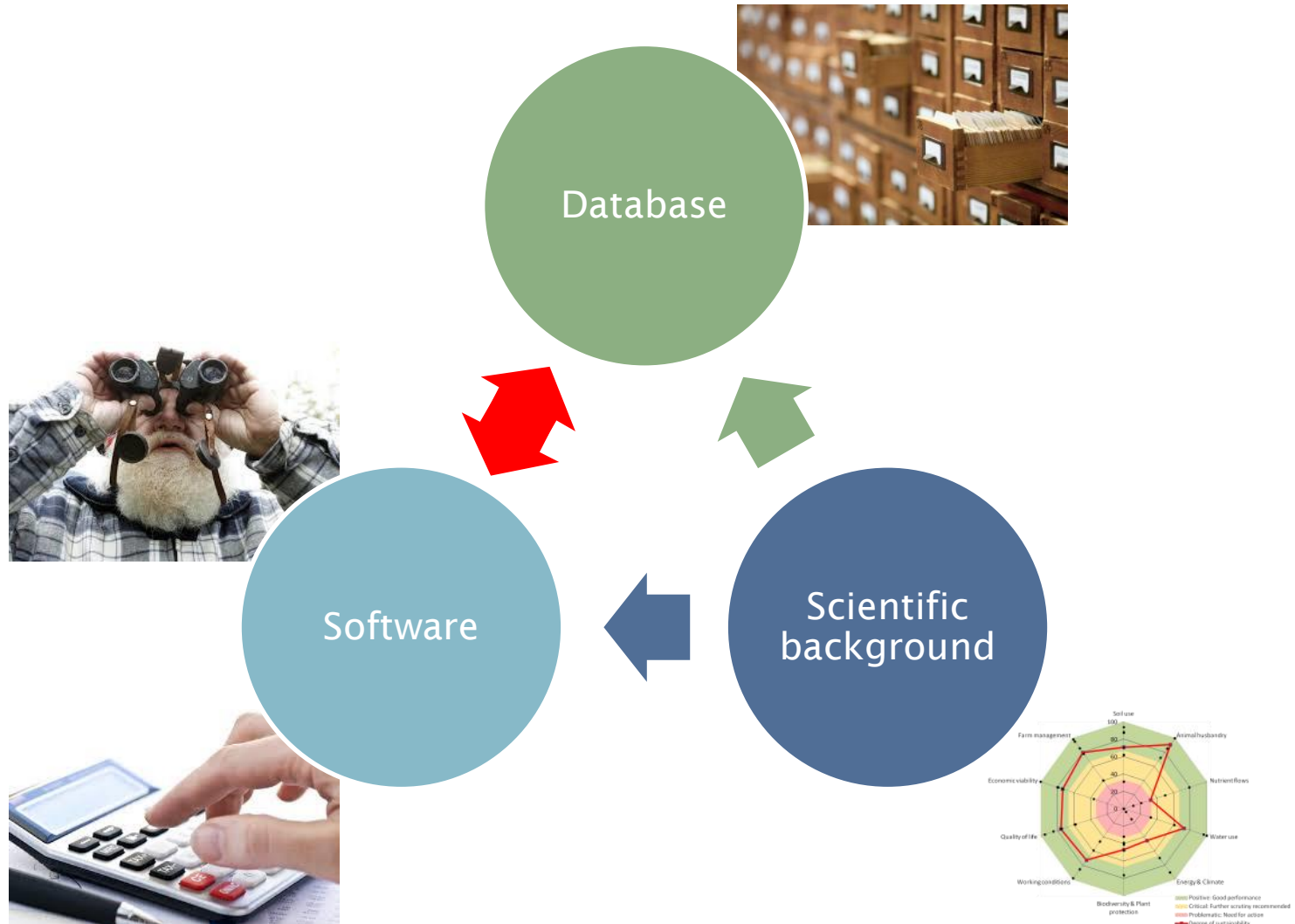
► Consequences:

- (1) flexibilize RISE, so users can adapt the level of detail at theme and indicator levels. Man kan ikke helt udelade et tema, for så er det ikke bæredygtighed.
- (2) create shortcuts for direct inputs or ratings. E.G: 1/3 af CH farmers er med I Integrated Production, hvor de har fået lavet en simpel BD analyse. Der er kreeret en normalisering fra deres scores til RISE scores. Så er der mange spørgsmål, der ikke bliver stillet I RISE.

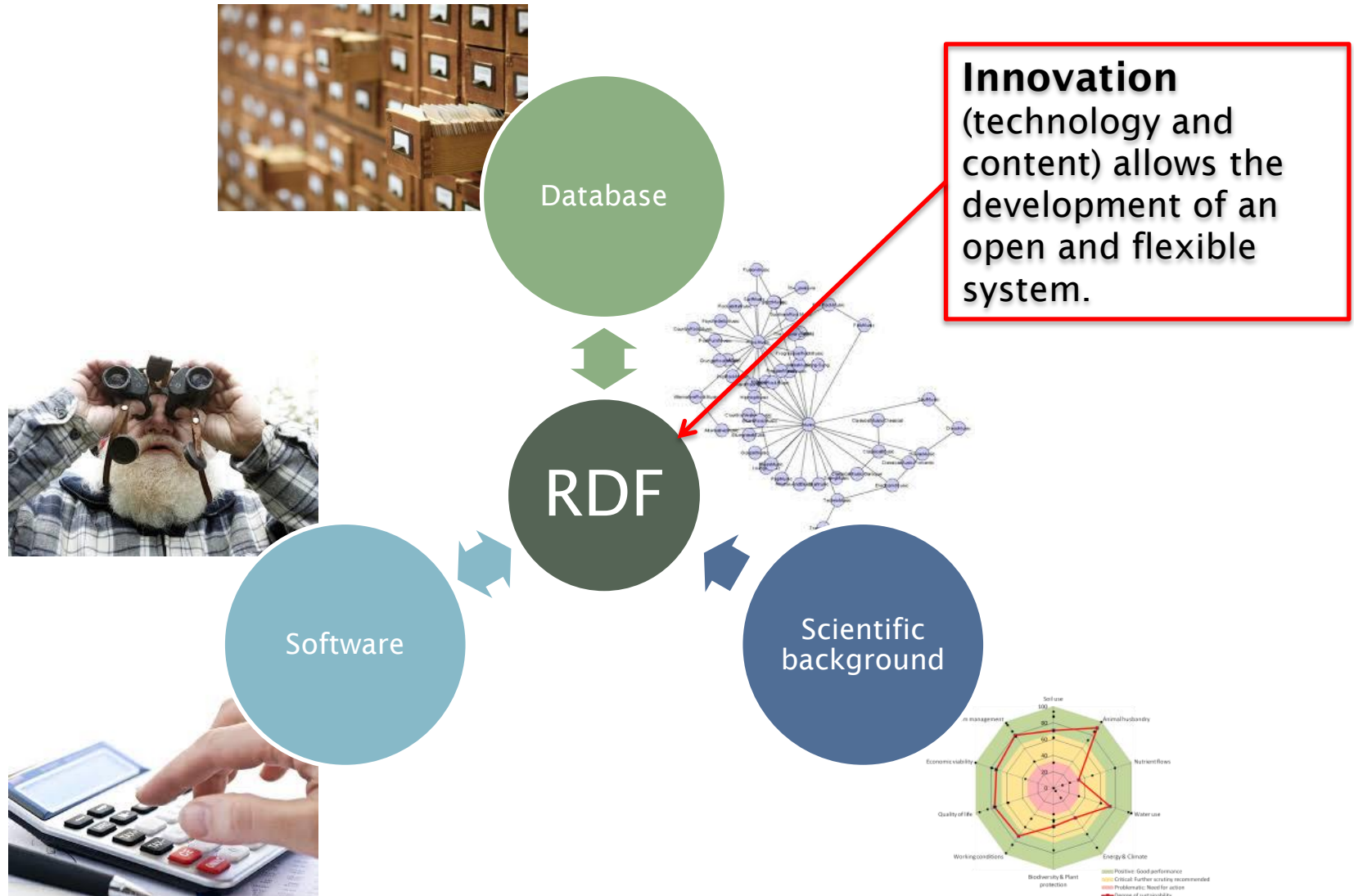
RISE software development

From RISE 2.0 to RISE 3.0

RISE 2.0 “yesterday”



RISE 3.0 “today”



RISE 3.0 – Why?

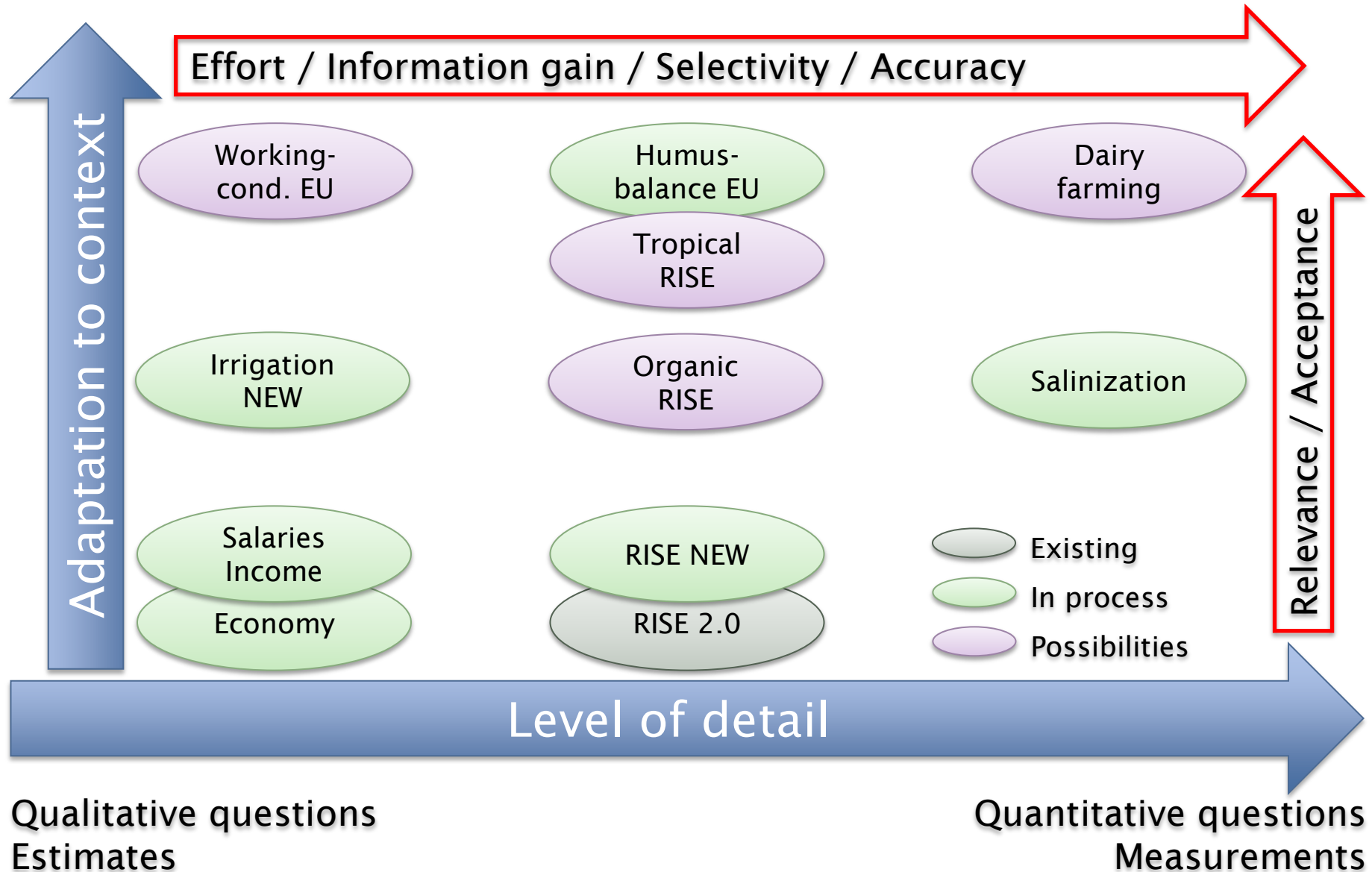
- ▶ The Resource description framework (RDF) allows to flexibilize the model through:
 - ▶ Calculation variants
 - ▶ Direct inputs
- ▶ **Calculation variants** allow the adaptation of the model to local circumstances and needs. The objectives are:
 - ▶ Increase acceptance of the system (tailor-made solution)
 - ▶ Increase relevance of the consulting process for all
 - ▶ Optimization of the process (focus on essentials)
- ▶ **Direct inputs** allow to shorten the process at appropriate points. The objectives are:
 - ▶ Time savings (more time for interpretation and action planning)
 - ▶ Docking sites for existing schemes (use of existing data)
 - ▶ Optimization of the process (use time where it is interesting and necessary to get an optimal gain of information.)

Visions for the close future

- ▶ RISE is used by agricultural advisors and teachers
 - ▶ for capacity building on farm-level sustainability;
 - ▶ for more farm consultancy and less command-and-control;
 - ▶ to initiate and support intrinsically motivated processes of continuous improvement.
- ▶ RISE is a flexible method that can be regionalized
 - ▶ to become better adapted to local and individual context;
 - ▶ to foster a targeted discussion and development of sustainable agricultural practice.
- ▶ RISE is sustained by a worldwide network of users, developers and clients
 - ▶ for continuing, localized development and ownership, and for a greater impact.

RISE 3.0 – The new features

RISE 3.0 – Calculation variants



Selection of theme variants

Demo

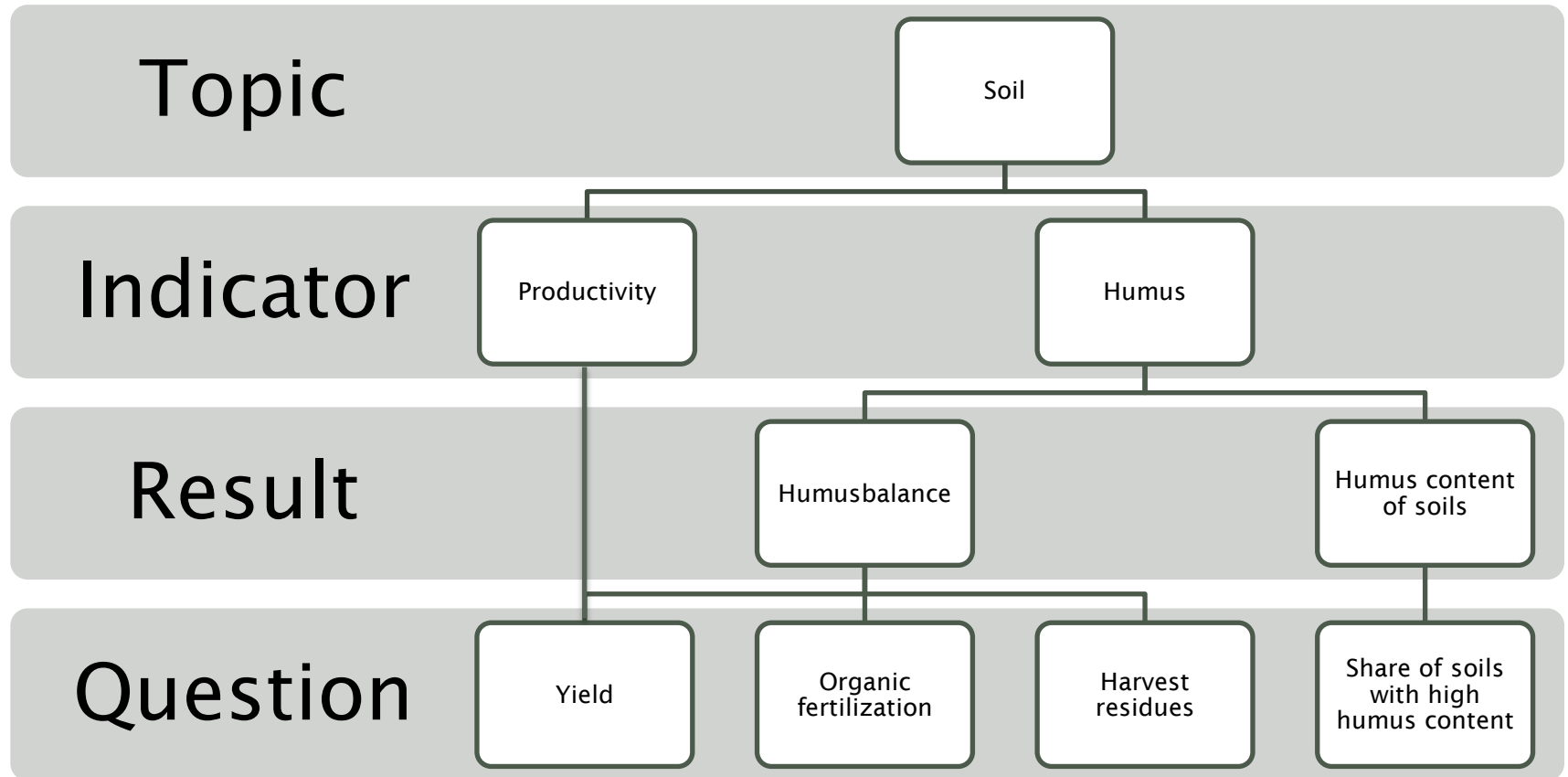
- ▶ A pre-selection has to be made at project level – the project administrator decides which variants are available to consultants in the project.
- ▶ Where more than 1 variant is available for a theme, the consultants can (and has to) chose at the farm level.
- ▶ Currently, at least 1 variant per version (2.0 and 3.0) is available. The “old” version, RISE 2.0, will be kept for another 1-2 years for the sake of longitudinal comparability, but will not be updated anymore.
- ▶ New variants can be defined and programmed in cooperation of e.g. SEGES or Aarhus University and HAFL.

Entering direct ratings at various levels

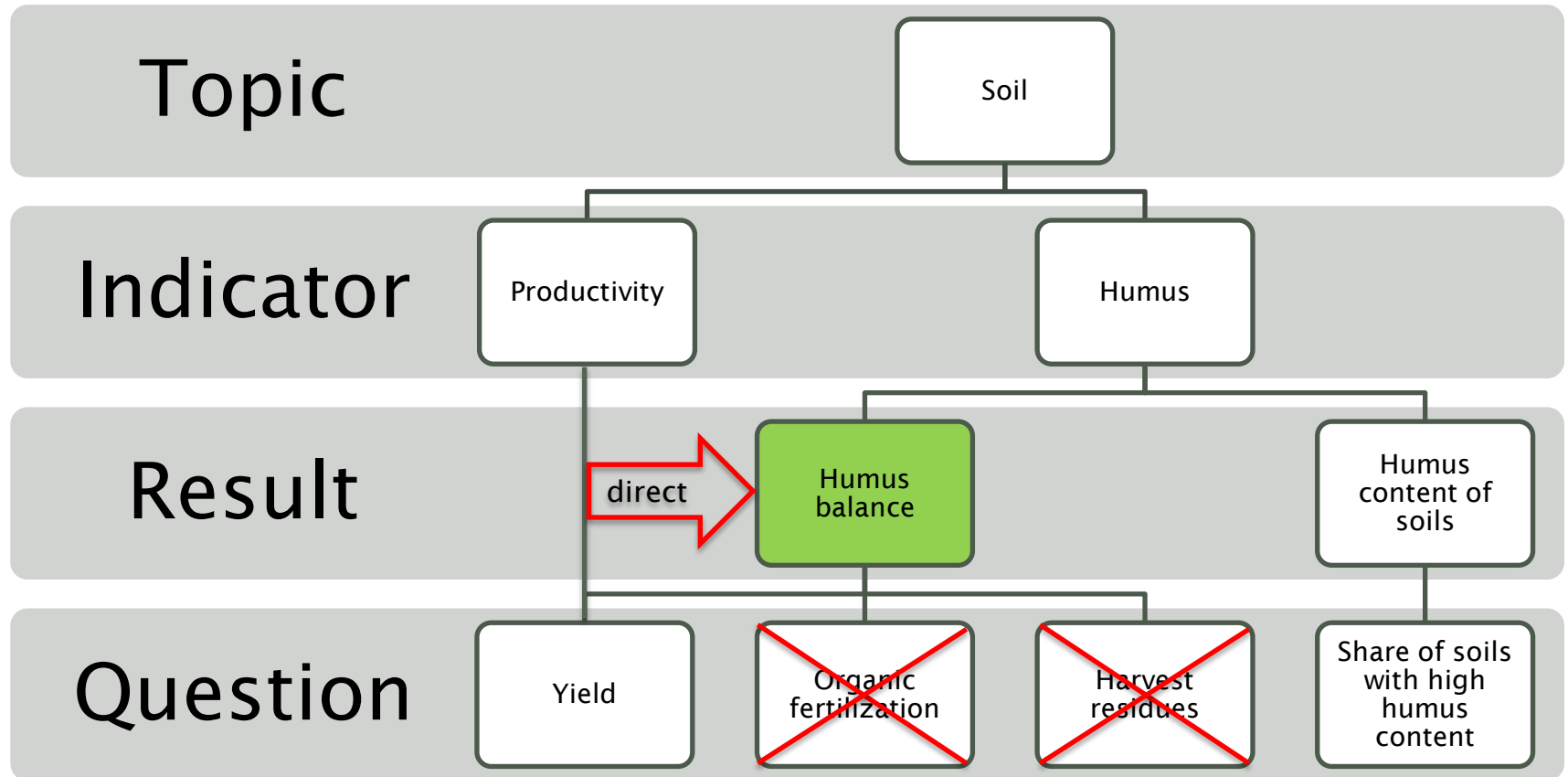
Demo

- ▶ No theme can be completely omitted – otherwise the assessment would not be holistic anymore (procedure in line with FAO-SAFA).
- ▶ A direct rating at theme level is the most radical type of shortcut. It entails a consultant and/or farmer assessment on a 5-step scale.
- ▶ For some RISE themes, most prominently for Economic viability, direct ratings at indicator level (= qualitative assessment) are available. They as well involve a 5-step scale.
- ▶ Shortcuts also exist in the questionnaire. For example, results of other calculators can be entered. In some cases, this will require transformation onto the RISE scale. Example: “biodiversity points” of the IP-Suisse scheme.

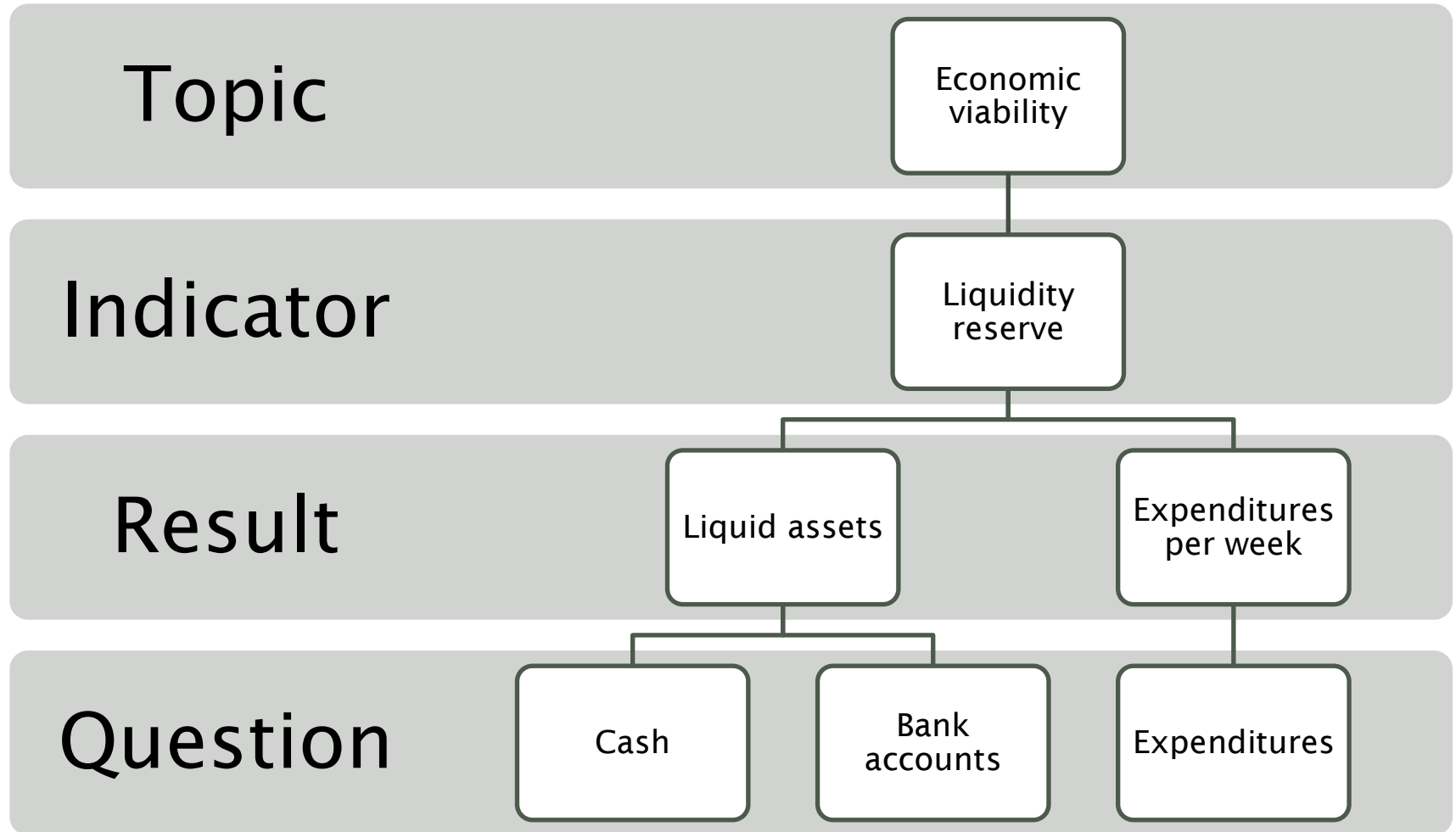
RISE 3.0 – Direct input (Humus balance)



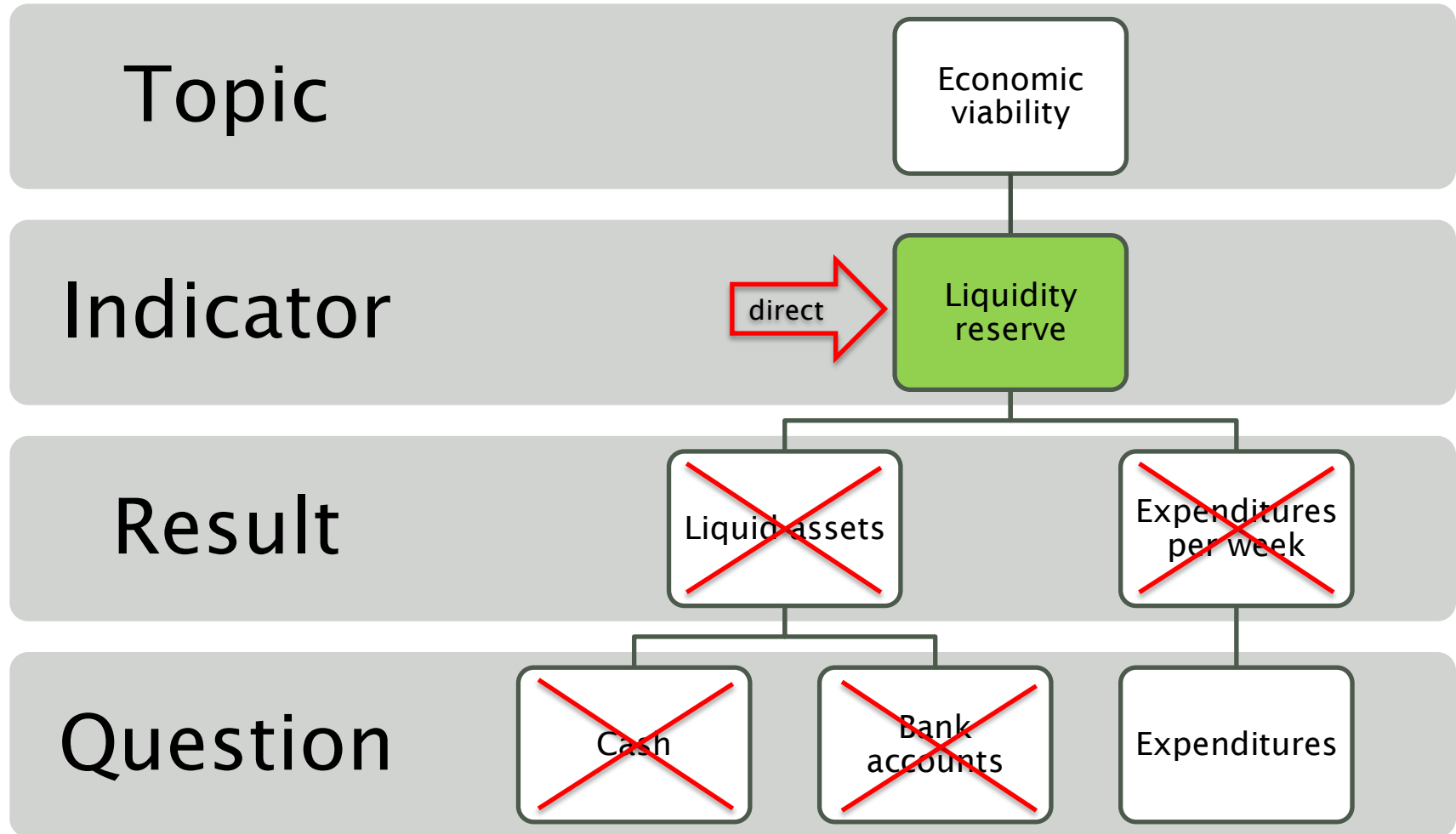
RISE 3.0 – Direct input (Humus balance)



RISE 3.0 – Self-assessment (example Liquidity)



RISE 3.0 – Self-assessment (example Liquidity)



Self-assessment (example Liquidity reserve)

How does it work?

1. Consultants and farmer decide to undertake a self-assessment in the area of liquidity reserve.
 - Legitimate reasons are listed on a next slide.
2. Activation of direct input in the questionnaire under 10.6
3. Consultant and farmer have to know the sustainability goal for the indicator (see Manual or RISE analysis part).
4. Consultant and farmer discuss the situation and take a self-assessment.
5. Classification with a value of 1 (not fulfilled) to 5 (very good).
 - The scale is explained in more detail on a next slide.
6. The software converts the entered value directly into RISE-points and thus the result of this indicator.
7. The software hides any question necessary for the calculation of the liquidity reserve.
 - It is possible that some questions are still used in other indicators and therefore do not disappear.

Self-assessment (example Liquidity reserve)

What are legitimate reasons?

- ▶ **Classification with other system:** Farmer and consultant have reliable sources (other tools, accounting, etc.) to adequately evaluate the farm in this aspect.
- ▶ **Need for action is known:** The management evaluates this aspect as insufficient and has recognized the need for action. Concrete measures to improve this aspect are already planned or in progress.
- ▶ **Not relevant:** Farmer and consultant can give reasons why this aspect has no particular relevance in the given context . For example, if the survey in this area would not bring any gain in information for the management and consultant.
- ▶ **In any case, the decision is to justify in the form of a comment in the questionnaire!**
- ▶ **Note:** For a rough estimate of the situation without collection of numbers, the qualitative variant of the respective indicator should be used.

Self-assessment (example Liquidity reserve)

Explanation of the scale used

- ▶ **5 = Very Good:** The sustainability goal is met.
"The farm is at all times able to pay salaries, liabilities to suppliers, loan repayments and interest from its own resources. To this end it has sufficient reserves of cash."
- ▶ **4 = Good:** The sustainability goal is largely met.
- ▶ **3 = Moderate:** A potential for improvement is assumed.
"Further investigations are necessary to determine whether and which measures can be implemented."
- ▶ **2 = Unsatisfactory:** Measures to improve are necessary.
- ▶ **1 = Not fulfilled:** The implementation of measures is urgent.
"The farm has insufficient reserves of liquidity. It happens regularly that financial obligations can not be followed from its own resources."

Filtering the RISE questionnaire

Demo

- ▶ The “analysis” section of the RISE software provides graphical (polygon) and tabular output at the theme, indicator and intermediate result levels.
- ▶ You may wonder how a certain result came about, or why an indicator has not been calculated. The filtering function helps you find all questions related with the respective theme or indicator.
- ▶ Wherever there is a funnel symbol in the software, this indicates the possibility to activate a filter.

Copying regions, crops and livestock categories

Demo

- ▶ Region-specific information can be edited by the region administrator only. Using specific data for e.g. organic and conventional farms may increase the discriminatory power and/or relevance of the analysis. You can simply copy an existing region and then edit those data that are different for the new region.
- ▶ Part of the crop- and livestock-related attributes are entered into tables. Instead of re-entering all information, you can copy an existing column and then only modify what is different for the new item.

RISE theme & indicator revisions

From RISE 2.0 to RISE 3.0

Changes in RISE content

THEME	Degree of change
Soil use	Moderate
Animal husbandry	Moderate
Materials and environment	High
Water use	Moderate
Energy and climate	Moderate
Biodiversity	Moderate
Working conditions	Low
Quality of life	Low
Economic viability	Moderate
Farm management	High


Jord

Soil use (moderately changed)

- ▶ The indicators *Soil management* and *Soil compaction* stay as in RISE 2.0.
- ▶ In the indicator *Crop productivity*, the rating of yields and quality is now a bit more sophisticated (optionally).
- ▶ The *Soil organic matter* calculations stay the same for farms in tropical climate. In temperate climate, the rating is based either on actual SOM data, or on STAND, i.e. an improved version of the “old” VDLUFA method.
- ▶ *Soil reaction* is rated as before in humid climate, but is now rated in a more sophisticated way (optionally based on the conductivity of irrigation water) in arid climate.
- ▶ The rating of *Soil erosion* has a stronger focus on actual erosion events, Altså baseret på observationer.... and the formulae are better aligned with RUSLE.
- ▶ *Soil pollution* was moved to the theme “Materials and environment”.

THEME: Soil use

RISE 2.0	RISE 3.0
Soil management	Soil management
Productivity of soil use	Productivity of soil use More sophisticated rating scheme, based on region- and crop-specific high, typical and low yields Quality definition can be individually adapted
Soil organic matter (VDLUFA method)	Soil organic matter Calculation of SOM balance according to STAND method for temperate climate OR rating of SOM content “Old” method kept for other than temperate climate



Option for direct input: SOM content, or result of previous SOM calculation

THEME: Soil use

RISE 2.0	RISE 3.0
Soil reaction	Soil reaction According to climate (arid or humid), EITHER acidification OR salinization risk is assessed Acidification as in RISE 2.0 Stepwise rating of salinization risk adapted to available data (optimum: data on electrical conductivity of irrigation water)
Soil pollution	Moved to «Materials and environment»
Soil erosion	Soil erosion Questions with more focus on erosion events, formulae now closer to RUSLE calculations
Soil compaction	Soil compaction

Dyrehold

Animal husbandry (moderately changed)

- ▶ The indicator *Herd management* stays as in RISE 2.0.
- ▶ In the indicator *Livestock productivity*, the rating of performance and quality is a bit more sophisticated (optional).
- ▶ The indicators *Possibility of species-specific behavior* and *Living conditions* have been refined, with more concrete questions and added topics.
- ▶ *Animal health* was slightly changed: mortality is now rated using category-specific thresholds, and we ask for “heads” instead of “percentages”. Før var der skelnet mellem profylaktisk og curativet. Ikke nu

THEME: Animal husbandry

RISE 2.0	RISE 3.0
Herd management	Herd management
Productivity of livestock	Productivity of livestock More sophisticated rating, as in crop production
Possibility of species-specific behaviour	Possibility of species-specific behaviour Concrete questions, no more «0, 1 or 2 criteria missed» Shortcuts for animal groups that are always kept on pasture
Living conditions	Living conditions Topics slightly extended (state of stable equipment) Shortcuts for animal groups that are always kept on pasture
Animal health	Animal health Rating of mortality adapted to category (no more universal rating) “Head” instead of “%”

Næringsstoffer => Materialer og miljø

Materials and environment (strongly changed)

- ▶ The scope of the former theme “Nutrient flows” was enhanced to cover everything related with nutrient cycles and environment pollution.
- ▶ The indicator *Material flows fandtes ikke før* . combines *N and P self-supply* with questions on procurement and recycling practice.
- ▶ The indicator *Fertilization* combines *Nitrogen balance, Phosphorus balance* and questions on fertilization practice. Fordi N og P balance er tæt korreleret.
- ▶ Rating functions for N and P balance can be regionalized. Biological N fixation is calculated based on biomass instead of area.
- ▶ The indicator *Air pollution* is an extension of *Ammonia emissions* by other gaseous emissions.
- ▶ The indicator *Soil and water pollution (er hentet fra jord)* combines and enhances *Risks to water pollution* and *Soil pollution*.

THEME: Materials and environment

- Theme has been completely reorganized

RISE 2.0	RISE 3.0
Nitrogen balance	Material flows = N and P self supply, regional procurement (feed, fertilizer), recycling
Phosphorus balance	Fertilization = N balance, P balance, fertilizer storage and application
N and P self supply	Crop protection = Principles of integrated protection, Toxicity and persistence of pesticides
Ammonia emission risk	Air pollution = ammonia + other gaseous pollutants
Waste management	Soil and water pollution (includes former indicators on Risks to water quality and Soil pollution)

Vand

Water use (moderately changed)

- ▶ The indicator *Water management* largely stays the same, with a slightly more sophisticated approach to identifying and rating water saving measures. Konsulent og landmand vurderer sammen, hvor langt landmand er fra potentialet.
- ▶ *Water supply* stays the same.
- ▶ In the indicator *Water use intensity*, the only change is that crop water demand is more accurately calculated, based on FAO-CROPWAT.
- ▶ *Risks to water quality* were moved to the theme “Materials and environment”.
- ▶ If crops are irrigated (determined in the top part of the questionnaire), a new indicator *Irrigation* can be activated. This focuses on effective and efficient irrigation.

THEME: Water use

RISE 2.0	RISE 3.0
Water management	Water management Additional question on water saving potential
Water supply	Water supply
Water use intensity	Water use intensity Water demands of crops now calculated based on FAO-CROPWAT, with calculation of irrigation demand on a monthly basis (regional data adapted)
Risks to water quality	Moved to «Materials and environment»
	Irrigation Efficacy and efficiency of irrigation

Energi og klima

Energy and climate (moderately changed)

- ▶ The indicator *Energy management* largely stays the same, with a slightly more sophisticated approach to identifying and rating energy saving measures. Konsulent og landmand vurderer sammen, hvor langt landmand er fra potentialet.
- ▶ The indicator *Energy use* combines *Energy use intensity* and *Share of renewable energy*; i.e. the amount of non-renewable energy per hectare is used and rated through a universal, empirically derived equation. Før: gigajoule/hektar og hvor meget % af energy der var renewable. De er nu kombineret til én, for gigajoule/hektar er ikke relevant. Nu beregner de hvor meget fossil og non renewable der bruges/hektar. Beregning baseres på de data, de allerede har i databasen.
- ▶ Calculations of the *Greenhouse gas balance* now employ the updated IPCC emission coefficients (som er ændret betydeligt for kort tid siden. F.eks. Er emissionerne fra køer nu langt højere). . Methane emissions from enteric fermentation and from slurry and manure storage are calculated more accurately (e.g. based on dry matter uptake). De ville at foderet fik højere betydning, ligesom andre faktorer, man har indflydelse på, f.eks. Slurry temperatur. There is a nice little dropdown now (før skulle man vurdere hvor mange hektar der er implementeret c sekquesration) nu har de, baseret på videnskab, en dropdown med muligheder. Det man kan sequester afhænger af hvor meget der allerede er i jorden, nu er de opdateret mht. Science.

THEME: Energy and Climate

RISE 2.0	RISE 3.0
Energy management	Energy management Additional question on energy saving potential
Energy intensity	Energy use (renamed and integrated) Rating of the (absolute) amount of non-renewable energy used per hectare, according to empirically derived equation
Share of renewable energy	
Greenhouse gas balance	Greenhouse gas balance <ul style="list-style-type: none">- Methane emission from ruminants: emission factors are a function of dry matter intake- Methane emission from slurry storage: emission factors are a function of animal category and annual average temperature (IPCC Tier 2)- Methane emission from paddy rice: emission factors adapted to new values, IPCC Tier 1- Soil C sequestration resp. emission: list of measures tied to science-based emission factors per unit area

Biodiversitet

Biodiversity (moderately changed)

- ▶ *Plant protection management* was moved to “Materials and environment”, based on advice from crop protection and biodiversity experts. Biodiversitet afhænger af meget andet end pesticider, og pesticider handler om mere end biodiversiteten.
- ▶ The rating of measures to foster biodiversity is now the subject of the new indicator *Biodiversity management*.
- ▶ Since the term «priority areas» is politically used, two indicators were renamed and now read *Ecological infrastructures* and *Distribution of ecological infrastructures*.
- ▶ The scope of the indicator *Intensity of agricultural production* was sharpened, as was that of the indicator *Diversity of agricultural production*. Fordi det er mest det, der betyder noget for biodiversitet. Questions and rating distinguish between production- and ecology-centered land use resp. areas.

THEME: Biodiversity

RISE 2.0	RISE 3.0
Plant protection management	Moved to «Materials and environment»
Ecological priority areas	Ecological infrastructures (renamed)
Intensity of agricultural production	Intensity of agricultural production <ul style="list-style-type: none">- Distinction between production-oriented and ecology-oriented areas- Intensity of crop protection now integrated toxicity and persistence of crop protection products- Measures to foster biodiversity moved to new indicator «Biodiversity management»
Landscape quality	Distribution of ecological infrastructures (renamed)

THEME: Biodiversity

RISE 2.0	RISE NEU Standard
Diversity of agricultural production	<p>Diversity of agricultural production</p> <ul style="list-style-type: none">- Diversity of land use types: Permanent crops now separated from forest- Number of old/endangered varieties and races- Permanent grassland: rating according to frequency of usage and yields- Qualitative questions concerning the farm's contribution to the conservation and development of varieties and races-
	<p>Biodiversity management</p> <ul style="list-style-type: none">- Qualitative questions concerning conscious and targeted handling of habitats and wild fauna and flora- Measures to foster biodiversity

Arbejdsforhold

Working conditions (hardly changed)

- ▶ Minor changes to the questions and calculations have been made, e.g. there now is a new workforce category “seasonal”.
- ▶ A qualitative version of the theme now exists.
- ▶ Vi kunne vælge at sige, at dette er fuldstændig dækket af lovgivning under direkteingaben.

THEME: Working conditions

RISE 2.0	RISE 3.0	RISE 3.0 Qualitative
Personnel management	Personnel management Minor changes	Personnel management Minor changes
Working hours	Working hours New work force category: “seasonal” – without rating of holidays	Working hours Qualitative, measure-based questions
Work safety	Work safety	Work safety

THEME: Working conditions

RISE 2.0	RISE 3.0	RISE 3.0 Qualitative
Attractiveness of salaries and income	<p>Attractiveness of salaries and income</p> <p>Employees as in RISE 2.0. Self-employed: average hourly earnings rated in comparison to poverty line (as in RISE 2.0), plus a bonus/malus for the farm's economic results (to partly correct for possible bias in private consumption)</p>	<p>Attractiveness of salaries and income</p> <p>Qualitative questions on salary and income level</p> <p>Employees: comparison with poverty line and with alternative jobs Self-employed: similar concept, including comparison with alternative occupations</p>

Livskvalitet

Quality of life (hardly changed)

- ▶ As the weighting of the topics' importance did not prove useful in the field, it was removed. Now, the level of satisfaction is directly asked for and not weighted ift. Hvor relevant de synes, det er.
- ▶ Der er felter hvor man kan kommentere, for det er jo meget kvalitativt.
- ▶ Der afdækkes ofte relevante ting her. Dette emne fik højest score hos landmænd, især hos deres koner.

THEME: Quality of life

RISE 2.0	RISE 3.0
Work and education	Topics and subtopics as in RISE 2.0 No more weighting according to importance More room for qualitative remarks
Financial situation	
Social relations	
Freedom and values	
Health	
Further aspects of life	

Økonomi

Economic viability (moderately changed)

- ▶ The indicators in this theme have been slightly renamed and rearranged for better alignment with the classical liquidity – stability – profitability model of economics.
- ▶ *Indebtedness rate* and *Debt service coverage* ratio were combined into the indicator *Debts*.
- ▶ *Economic vulnerability* was renamed to *Stability*.
- ▶ There are some optional extensions to the calculations, e.g. a rating of the annual change of net farm assets.
- ▶ Man kan tilføje ændringer i egenkapitalen.
- ▶ A qualitative version of the theme now exists.

THEME: Economic viability

RISE 2.0	RISE 3.0	RISE 3.0 Qualitative
Liquidity reserve	Liquidity (renamed)	Liquidity
Indebtation rate	Moved to “Debts”	Moved to “Debts”
Economic vulnerability	Stability (renamed)	Stability
Livelihood	Livelihood Added (optional): rating of net farm assets development OR qualitative self-assessment of economic results	Livelihood

THEME: Economic viability

RISE 2.0	RISE 3.0	RISE 3.0 Qualitative
Cash flow-turnover ratio	Moved to «Profitability»	Moved to «Profitability»
Debt service coverage ratio		
	Debts Combines formed indicators «Debt service coverage ratio» and «Indebtation factor»	Debts
	Profitability Extended version of former indicator «Cash flow-turnover ratio»	Profitability

Driftsledelse

Farm management (strongly changed)

- ▶ The focus of this theme is now more on strategic issues and on inter-personal relations – it has become more of a “meta-theme”.
- ▶ The assessment of risks and risk mitigation is more open now, so the farmer can name those risks he thinks are relevant.
- ▶ The former indicator *Cooperation* now includes more questions on *relations* with business partners, neighbors etc.; it is less normative (cooperation was always considered positive before)
- ▶ Nu er det mere governance orienteret.

THEME: Farm management

RISE 2.0	RISE 3.0
	Identity and management style: Characterization of the farmer (not rated)
Farm strategy and planning	Vision and strategy (renamed) Questions extended, with more focus on individual value system
Supply and yield stability	Omitted. Topic moved to new indicator Risk and livelihood
	Risk and livelihood NEW <ul style="list-style-type: none">- Self-assessment of major risks to operations and possibilities to mitigate those risks (e.g. financial risk => no access to credit)- Insurance (formal & informal)- Estimation of market trends (inputs and products)- Livelihood issues

THEME: Farm management

RISE 2.0	RISE 3.0
Instruments for planning and documentation	Moved to Quality of management
Quality management	Quality of management (renamed) More comprehensive understanding of quality (process-based)
Cooperation	Cooperation and framework conditions More focus on relations, conflict and conflict resolution with persons and institutions (companies)

Outlook: work in progress

De er gået lidt videre med grey energi, grey emissions osv., men ikke så meget, for det vil kræve mange data, som alligvel ikke er så akkurate, og som går ud over the scope of the farmer.

Men kan det ikke svække landmandens motivation?

Sammen med FiBL arbejder de på en database til SMART, som måske kan bruges til RISE. Fra et FAO projekt har de en ret præcis database, som kunne bruges. Det vil de gå videre med, hvis vi lægger pres på. Evelien nævner beregninger af det areal, der bruges til soja produktion, det kann være enormt

Based on a series of tests in Switzerland and Germany, it turned out that some polishing is necessary. However, the main features (RDF etc.) are all functional.

Last refinement of themes Soil use and Materials & environment

«Refilling» of the analysis part of the software

Translations

WHEN?

Translation into English until the end of January => translation into Danish will follow.



Tak for
opmærksomheden!