Bees and the EU's Common Agricultural Policy: Recommendations from science versus the reality of policymaking

Guy Pe'er[1,2]

Bee Symposium, 19-21.11.2021 Weimar


P. Bezak


S. Lakner

1) German Centre for integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig
2) UFZ – Helmholtz Centre for Environmental Research, Dept. Ecosystem Services

Projects:
iCAP-BES, CAP4GI, GrazeLIFE, Birds@Farmlands , VielFalterGarten, Israeli Butterfly Monitoring Scheme

iDiv UFZ

Bees and the Common Agricultural Policy

Cole et al. 2019 J Appl Ecol

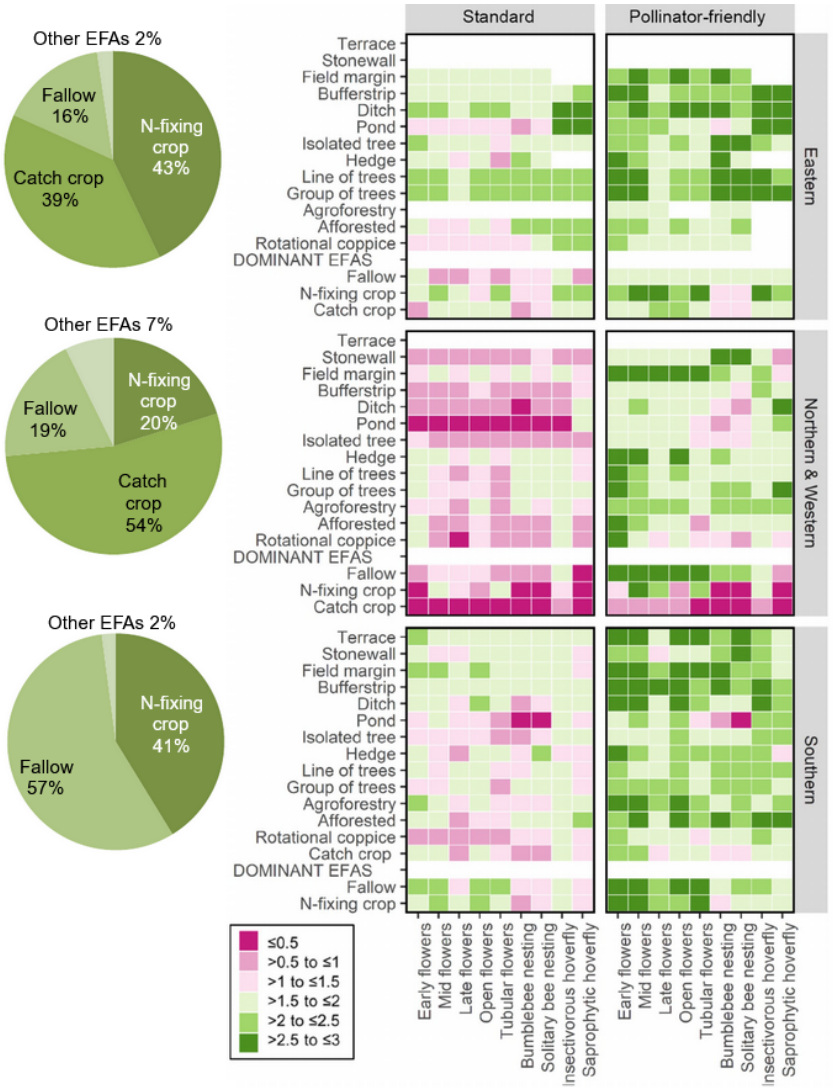
Received: 4 March 2019 | Accepted: 22 November 2019
DOI: 10.1111/1365-2664.13572

RESEARCH ARTICLE

Journal of Applied Ecology

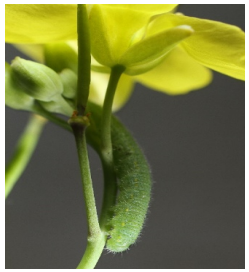
A critical analysis of the potential for EU Common Agricultural Policy measures to support wild pollinators on farmland

Lorna J. Cole[1] | David Kleijn[2] | Lynn V. Dicks[3,4] | Jane C. Stout[5] | Simon G. Potts[6] | Matthias Albrecht[7] | Mario V. Balzan[8] | Ignasi Bartomeus[9] | Penelope J. Bebeli[10] | Danilo Bevk[11] | Jacobus C. Biesmeijer[12,13] | Róbert Chlebo[14] | Anželika Dautartė[15] | Nikolaos Emmanouil[16] | Chris Hartfield[17] | John M. Holland[18] | Andrea Holzschuh[19] | Nieke T. J. Knoben[12] | Anikó Kovács-Hostyánszki[20] | Yael Mandelik[21] | Heleni Panou[16] | Robert J. Paxton[22,23] | Theodora Petanidou[24] | Miguel A. A. Pinheiro de Carvalho[25] | Maj Rundlöf[26] | Jean-Pierre Sarthou[27] | Menelaos C. Stavrinides[28] | Maria Jose Suso[29] | Hajnalka Szentgyörgyi[30] | Bernard E. Vaissière[31] | Androulla Varnava[32] | Montserrat Vilà[9] | Romualdas Zemeckis[15] | Jeroen Scheper[33,34]



Pollinators need…

- Landscape structures
- A mix of nectar resources and nesting sites (=Heterogeneity)
- Less poison



iDiv UFZ

Bees and the Common Agricultural Policy

Dicks et al. 2016 Science

POLICY FORUM

BIODIVERSITY

Ten policies for pollinators

What governments can do to safeguard pollination services

By **Lynn V. Dicks,[1] Blandina Viana,[2] Riccardo Bommarco,[3] Berry Brosi,[4] María del Coro Arizmendi,[5] Saul A. Cunningham,[6] Leonardo Galetto,[7] Rosemary Hill,[8] Ariadna V. Lopes,[9] Carmen Pires,[10] Hisatomo Taki,[11] Simon G. Potts[12]**

body (*6*); and the issue on the agenda for next month's Conference of the Parties to the CBD, we see a chance for global-scale policy change. We extend beyond the IPBES report, which we helped to write, and suggest 10 policies that governments should seriously

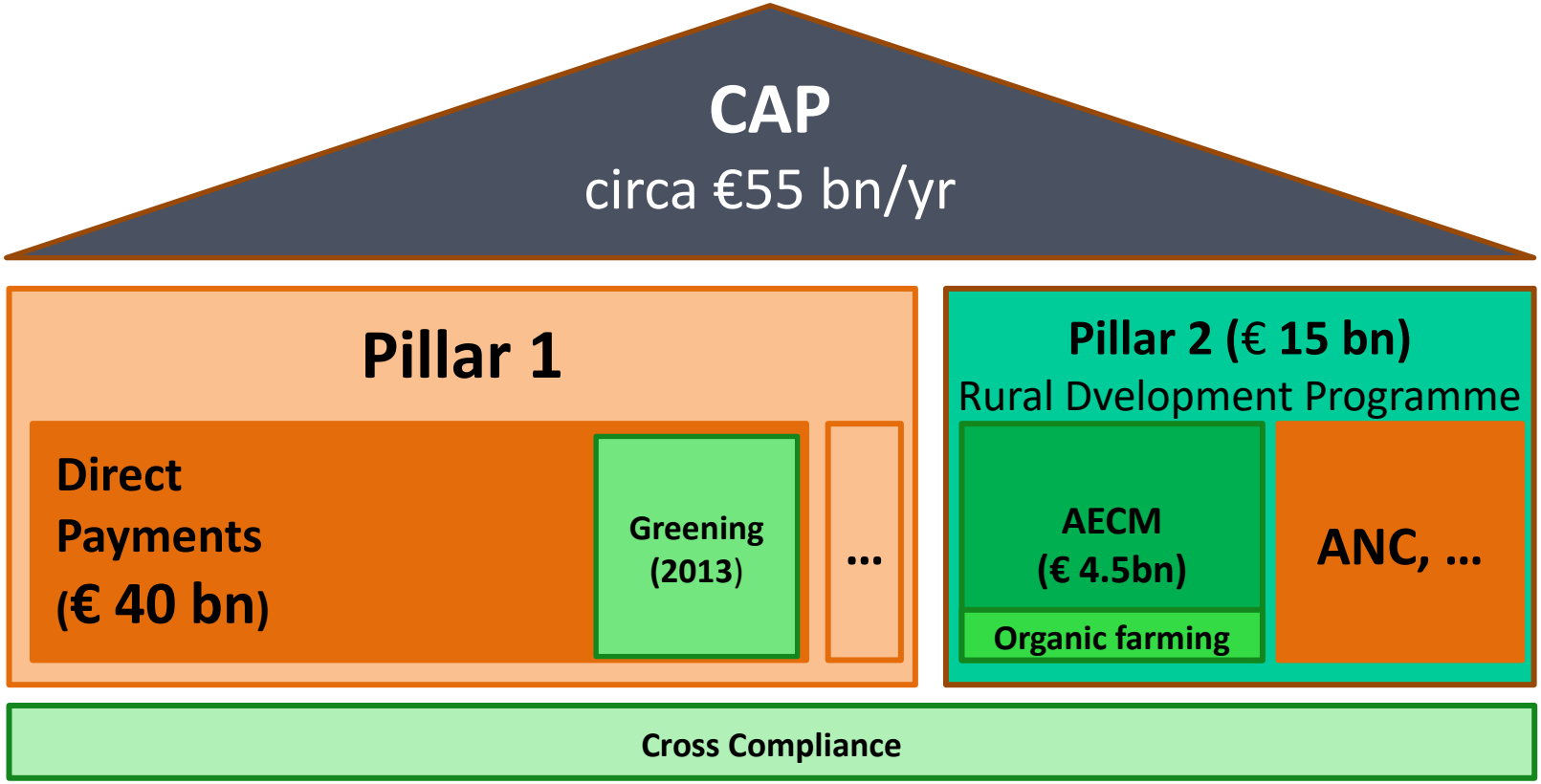
Ten pollinator policies

1. Raise pesticide regulatory standards.
2. Promote integrated pest management (IPM).
3. Include indirect and sublethal effects in GM crop risk assessments.
4. Regulate movement of managed pollinators.
5. Develop incentives, such as insurance schemes, to help farmers benefit from ecosystem services instead of agrochemicals.
6. Recognize pollination as an agricultural input in extension services.
7. Support diversified farming systems.
8. Conserve and restore "green infrastructure" (a network of habitats that pollinators can move between) in agricultural and urban landscapes.
9. Develop long-term monitoring of pollinators and pollination.
10. Fund participatory research on improving yields in organic, diversified, and ecologically intensified farming.

iDiv UFZ

What is the CAP (2014-2020)?

One policy, €55 Bil./yr, multiple objectives



What is the CAP (2014-2020)?

One policy, €55 Bil./yr, multiple objectives

Treaty on the functioning of the European Union (TFEU, Article 39)

Title III Agriculture and Fishery

Article 39 (ex 33)

(1) The objectives of the common agricultural policy shall be:

a) to increase agricultural productivity

b) thus to ensure a fair **standard of living for the agricultural community**

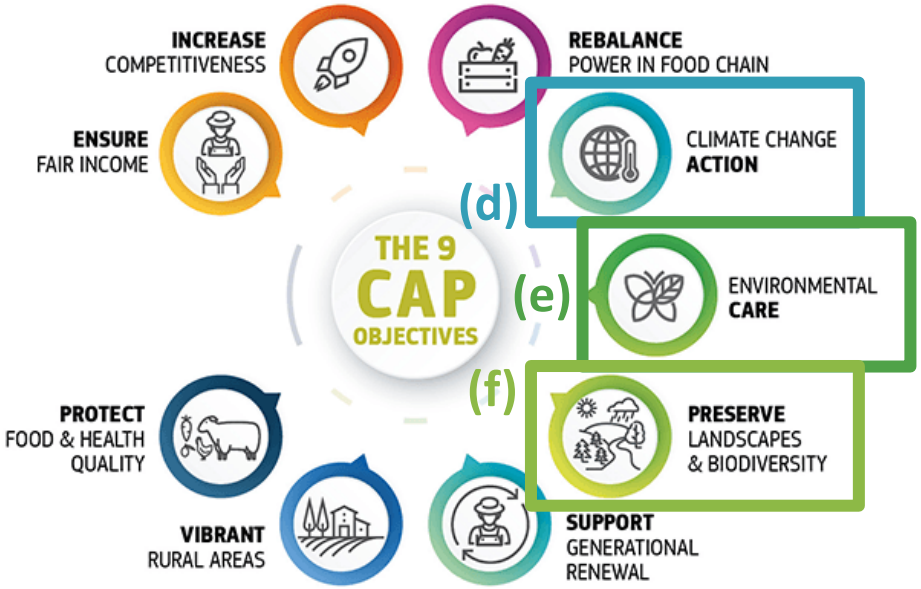
c) to stabilize markets;

d) To assure **the availability of supplies;**

e) to ensure that **supplies reach consumers** at reasonable prices.

Source: Treaty on the functioning of the European Union, simplified. url: https://bit.ly/3kbug8G

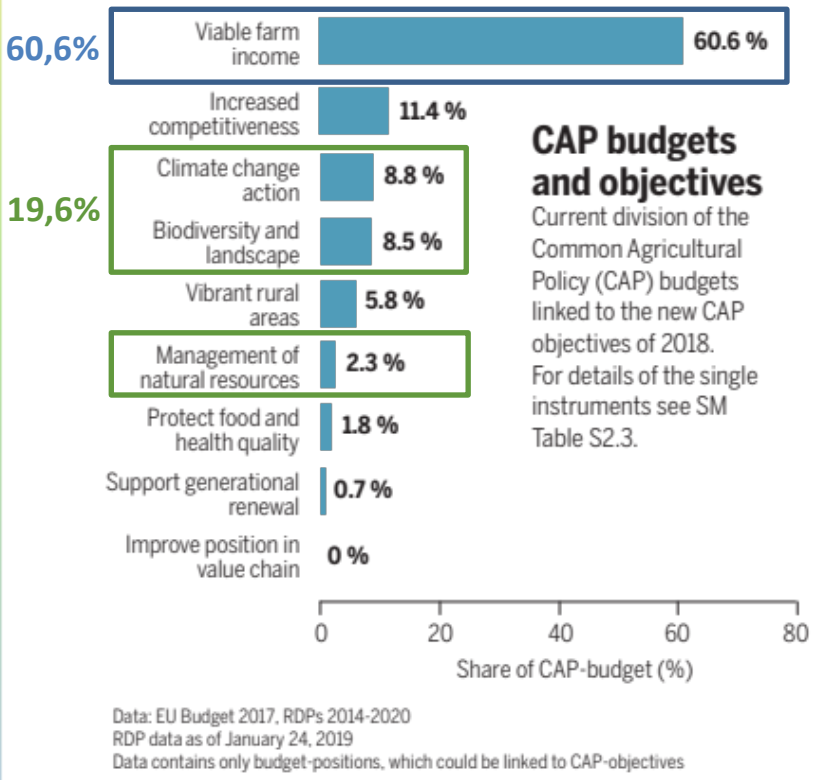
Proposal CAP post 2023, Articles 5/6



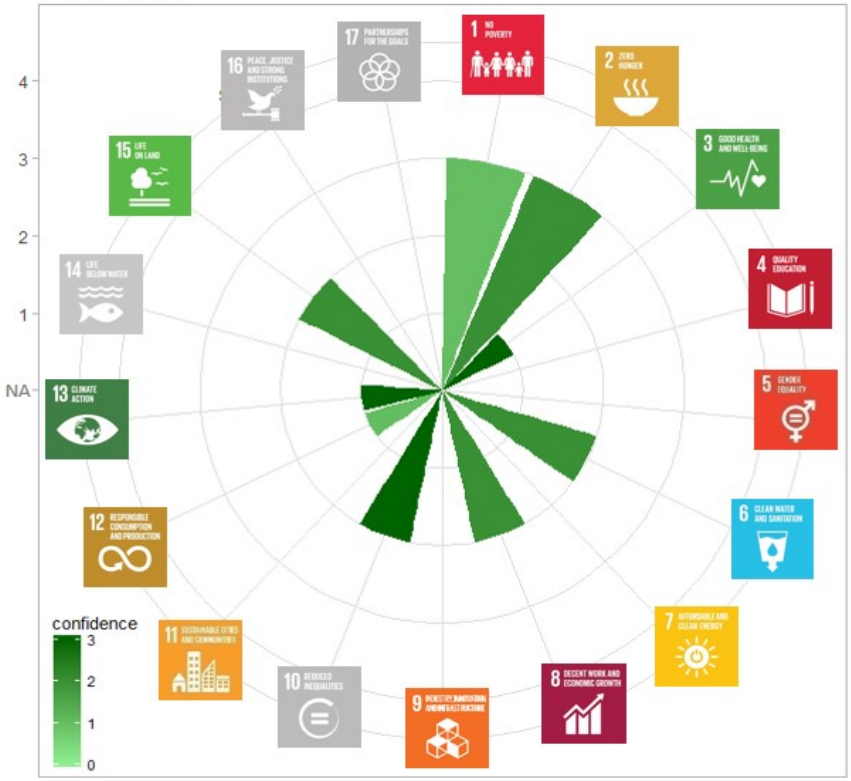
Source: EC 2017: Future of the common agricultural policy; https://bit.ly/355UFgn , EC 2018: CAP-Reform Draft

Weaknesses of the CAP

Lack of balance among objectives



Unequal performance across SDGs

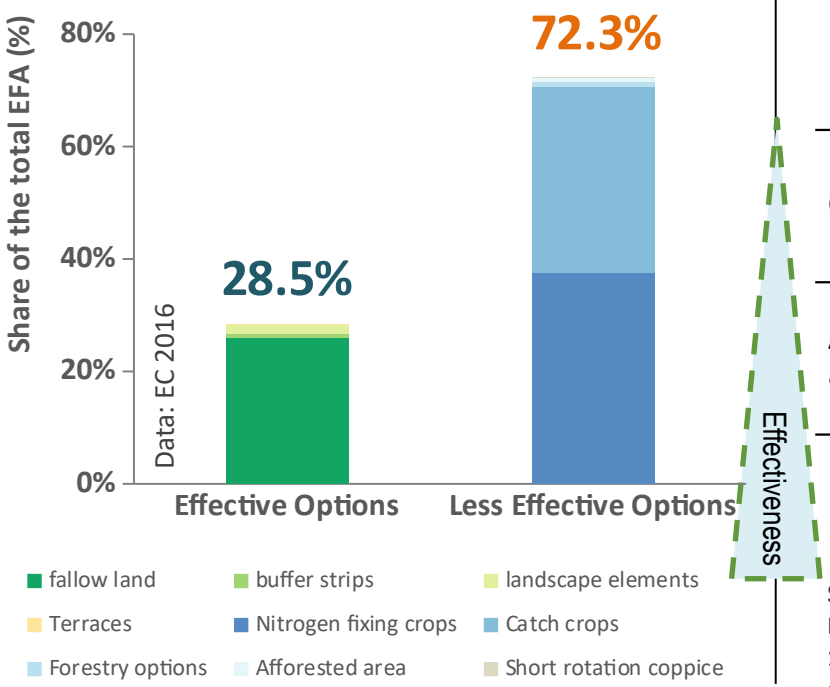


Pe'er et al. 2019: A greener path for the EU Common Agricultural Policy, Science

iDiv UFZ

Weaknesses of the CAP

Ineffective and inefficient greening: Case of Ecological Focus Areas (EFA)



Financial priorities mismatch environmental effectiveness

Measure	Area (in Mio. ha)	Budget (in Mio. EUR)	Payments per area (EUR/ha)
Greening: EFA	8.00	12,638.21	789.89
Agri-environmental & climate measures[1]	13.15	3,250.92	247.17
Natura 2000[2]	11.65	210.85	18.09

Payments

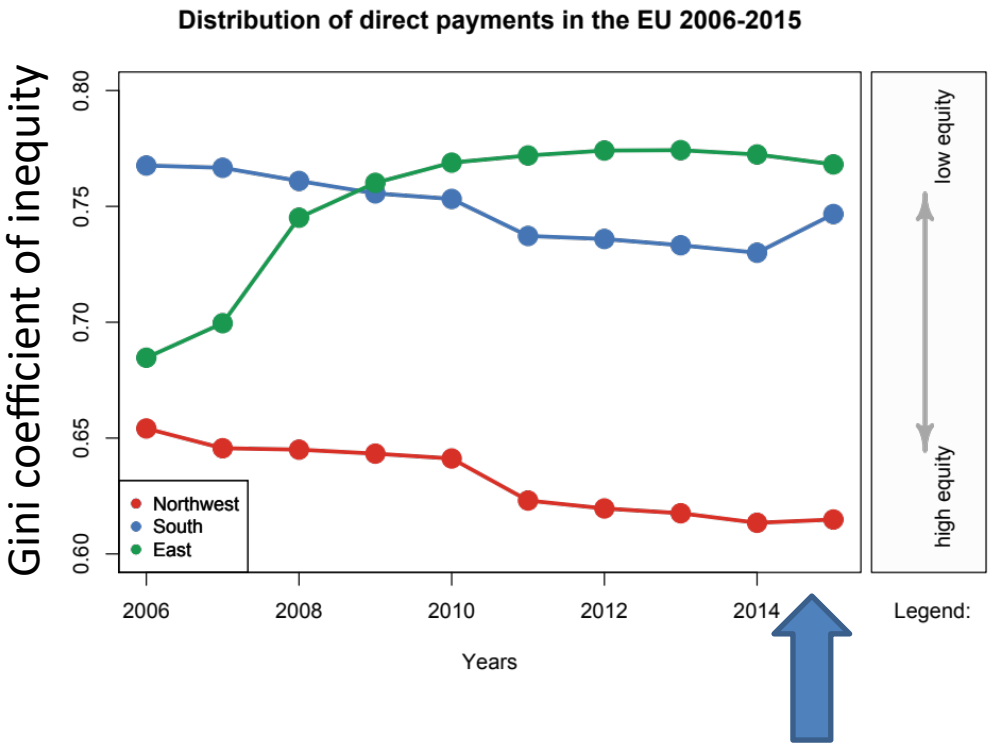
Source: own calculations
Data from EC-Budget 2017; RDP-Database 2017. RDP includes nat. Co-funding
1 AECM is including Area and Payments for organic farming, but without payments for area with natural constraints (ANC);
2 Grassland-area as SCI reported to the EU-Commission

Pe'er et al. 2017: Adding some green to the greening Cons. Letters

Pe'er et al. 2017: Fitness Check

iDiv UFZ

Inefficiency of Direct Payments

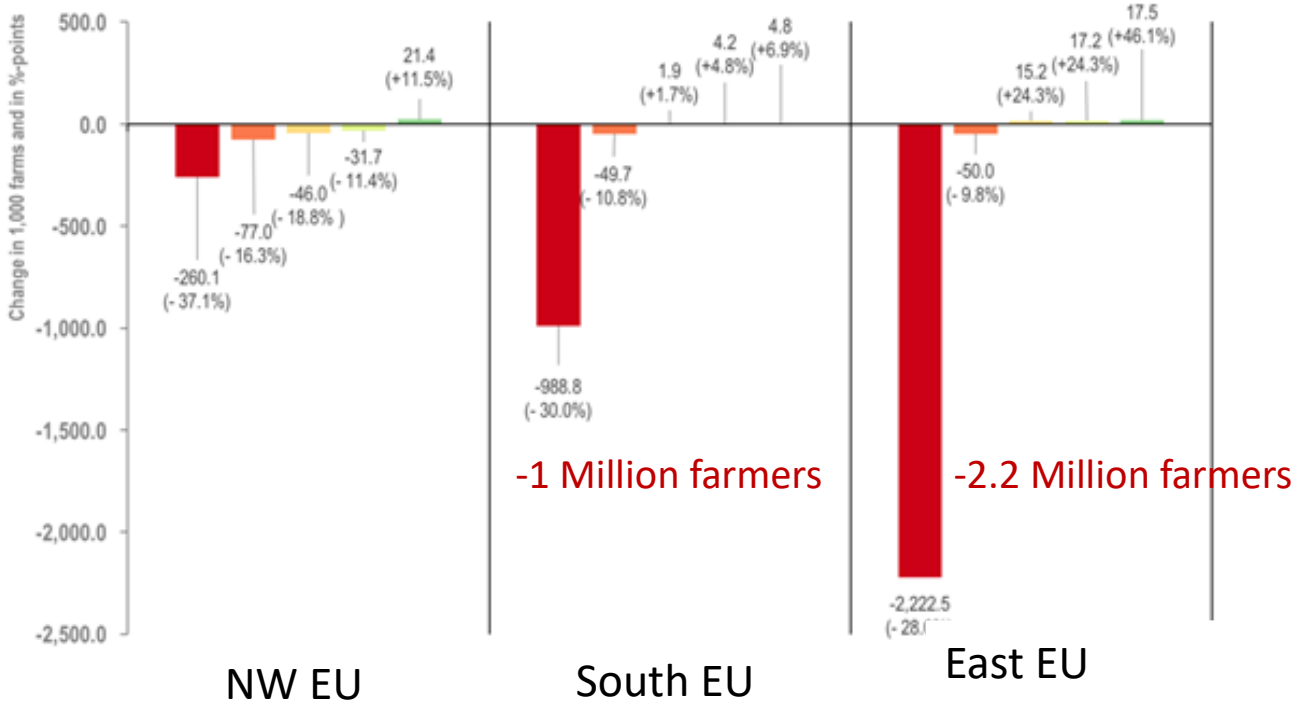


„Capping and redistribution“ did not work

- **Distribution of DP** unequal: Inefficient to address income support objective(s)
- **Leakage of DP to land-markets** Higher land rents (30-50%) *De facto* support for **land owners**
- **No clear objective**
- **Missing indicators:** focus on farm income instead of farm households; failing to consider assets and other incomes.

Changes in farm numbers across farm sizes

2005-2013



Farm size

- < 10 ha
- 10 – 30 ha
- 30 – 50 ha
- 50 – 100 ha
- > 100 ha

What is new in the CAP reform

1. New CAP-Objectives

- **Nine objectives**, three related to the environment
- d) climate action e) environmental care f) landscapes and biodiversity (EC 2018)

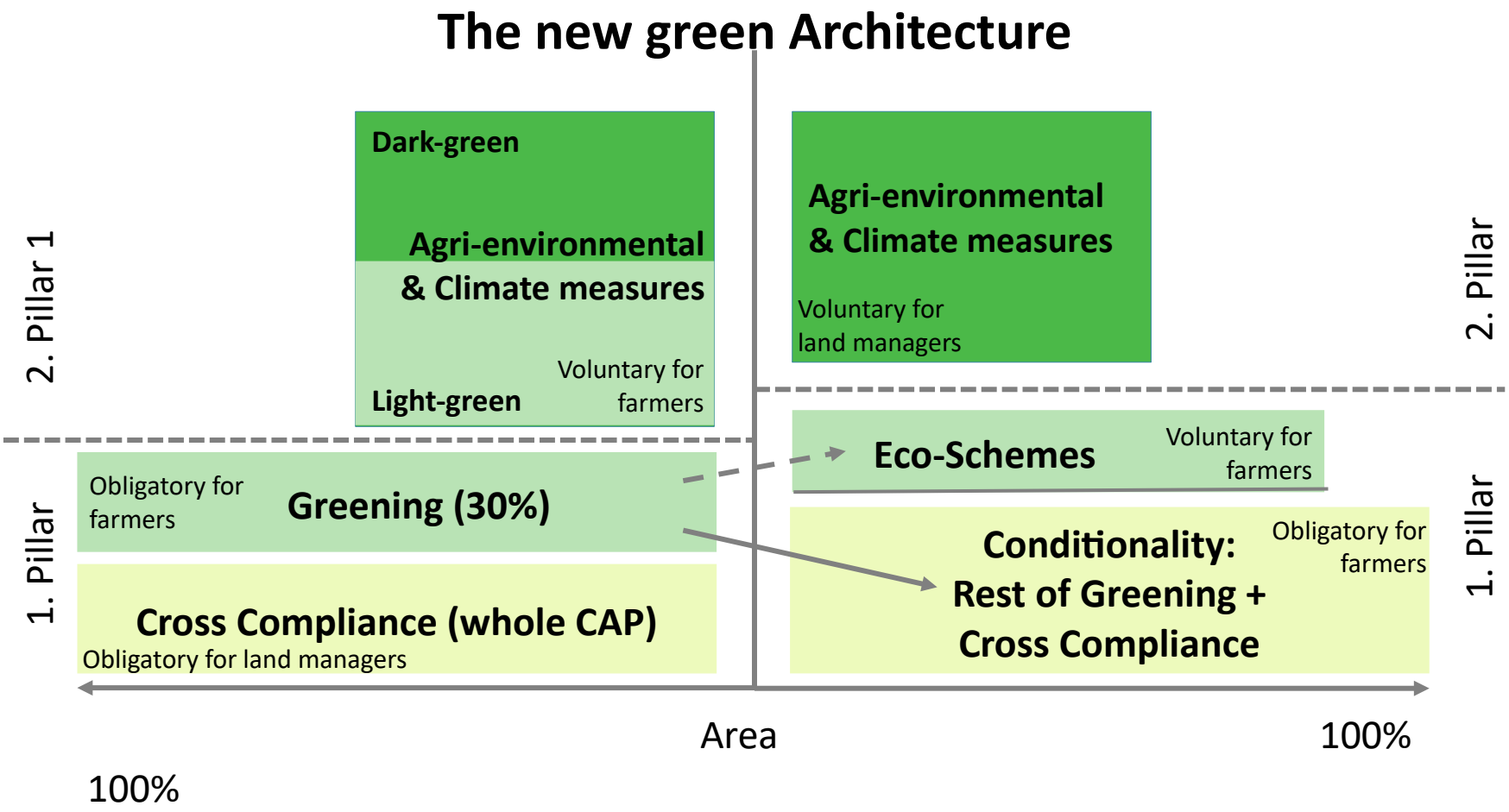
2. New delivery model

- **More flexibility** for the member states
- **Strategic plans** as management tool: MS have to justify their implementation
- **Indicator as key instrument** to measure policy-performance (output, result and impact)

3. Green Architecture of the CAP

- **a) Enhanced Conditionality:** Cross Compliance + parts of **Greening** via GAEC
- **b) Eco-Schemes:** voluntary yearly agri-environmental program in I. pillar (replacing Greening)
- **c) Agri-environment**al and climate measures **(AECM)** in II. pillar

What is new in the CAP reform



Scientists: CAP proposal not ambitious enough

Pe'er et al. 2019: some improvements, more risks
(cuts on Pillar 2, vagueness, climate, …)

Justified concern by farmers and the public
A risk to the EU Green Deal, to farmers/farming and to the EU

> 3.640 scientists signed a call for action

We cannot afford 7 more years ineffective CAP-spending!

PERSPECTIVE

PEOPLE AND NATURE | BRITISH ECOLOGICAL SOCIETY

Action needed for the EU Common Agricultural Policy to address sustainability challenges

Guy Pe'er[1,2,3] | Aletta Bonn[1,2,4] | Helge Bruelheide[1,5] | Petra Dieker[6] | Nico Eisenhauer[1,3] | Peter H. Feindt[7] | Gregor Hagedorn[8] | Bernd Hansjürgens[2,5] | Irina Herzon[9] | Ângela Lomba[10] | Elisabeth Marquard[2] | Francisco Moreira[10,11] | Heike Nitsch[12] | Rainer Oppermann[13] | Andrea Perino[1] | Norbert Röder[14] | Christian Schleyer[15] | Stefan Schindler[16,17] | Christine Wolf[2] | Yves Zinngrebe[2,18] | Sebastian Lakner[14,18]

Pe'er et al. (2020) People and Nature

iDiv UFZ

Much response on our call for action!

Meetings with policy-makers led to an invitation to harvest science-based recommendations to ensure CAP achieves its biodiversity objective

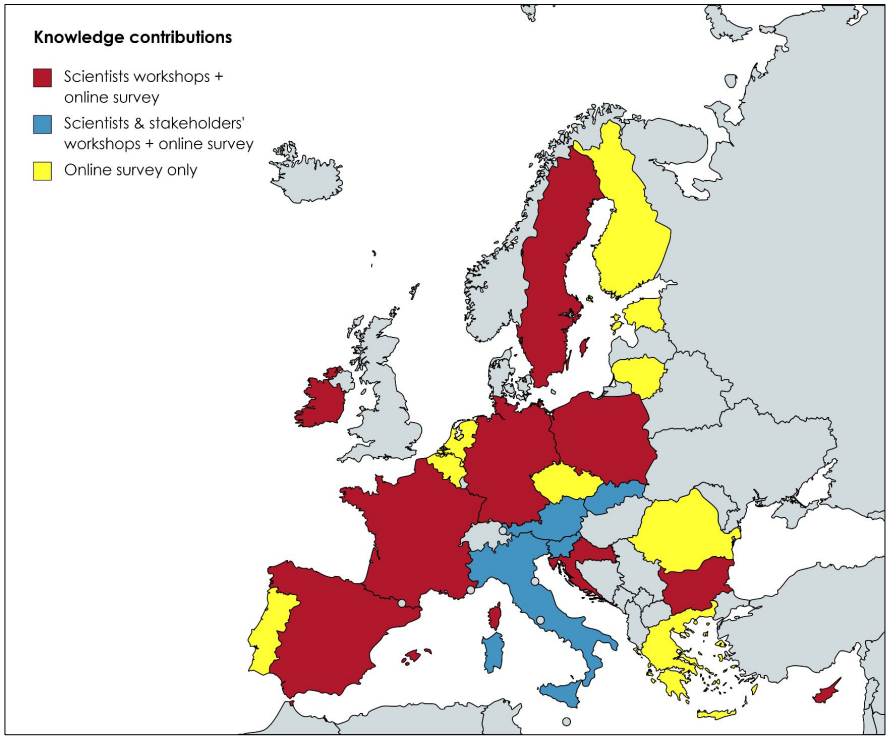
Methods:

- Workshops in 13 Member States
- Follow up online survey

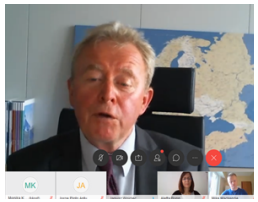
Inputs received from

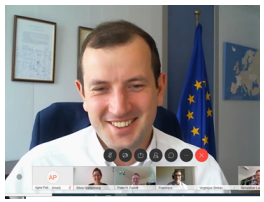
> 300 scientists & other experts

22 Member States



Map produced using MapChart (https://mapchart.net/europe.html)





iDiv UFZ

Outcomes I: key emerging principles

- **Landscape features & semi-natural areas** (esp. **grasslands**) key for success
- Habitat **diversity & multifunctionality**: win-win for biodiversity, climate, soil, water...
- **Spatial planning and regionalization** enhance payment efficiency
- **Collaborative & result-based approaches** enhance effectiveness & efficiency
- **Communication, education and farmer engagement** to…
  - Improve acceptance of compulsory measures
  - Increase uptake of voluntary measures
  - Facilitate learning and adaptive management
  - Generate a sense of ownership and stewardship

iDiv UFZ

Outcomes II: Optimizing Green Architecture's design

Enhanced conditionality: set high standards, across the entire farmed area

GAEC[1] **2** (protection of wetland & peatland):

➔ Apply **on all land**

GAEC 9 (protection of landscape features & non-productive land):

➔ Min 5% **on all land**, no production-oriented options.

GAEC 10 (ban on converting or ploughing permanent grassland in Natura 2000 sites):

➔ extend to Ecologically Sensitive Permanent Grasslands **beyond protected areas**.

Agri-Environment-Climate Measures (AECM): Invest in the most established instrument

- Expand budgets
- Employ attractive payments to generate benefits to participants

1) GAEC: Good Agricultural and Environmental Conditions

iDiv UFZ

Outcomes II: Optimizing Green Architecture's design

Eco-schemes can double the total budget for biodiversity if they…

- Are **evidence-based**, clearly linked to biodiversity objectives
- Go beyond conditionality, complement AECM
- Are financially **attractive** and **simple** for administrators and farmers
- Strive for **continuity** over time (multi-annual implementation)

Risks:

- Annual design
- Dilution by ineffective measures or other objectives
- Competition with AECM

The different intruments must be coordinated with each other

1) Agricultural Knowledge and Innovation Systems
2) European Innovation Partnerships for agriculture

What should be supported under Eco-schemes?

Include (examples)

- Protect & Restore non-productive land and landscape features (→ 10%)
- Extensive permanent grasslands
- Restoration of habitat quality
- Wetland protection and restoration
- Field margins, buffer strips, fallow land
- …

Exclude (examples):

- ‚Boost' schemes
- Precision farming
- Catch crops & green cover
- Intensive grazing
- Forestry & unsustainable afforestation

…

Horizontal standards: soil, water use and chemical inputs

iDiv UFZ

Outcomes III: Implementation

Targets:

- **Align with EU Green Deal** and other strategies & agreements
- Regionalize to suit national and regional conditions
- Set interim targets

Criteria to evaluate ambition in Strategic Plans

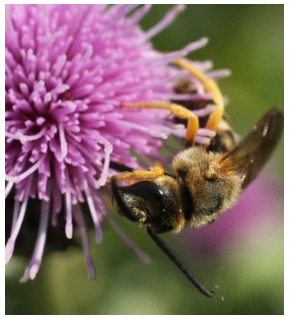
1) Acknowledging the problems
2) A **clear intervention logic** and **breadth of actions**
3) Adherence to principles of **no dilution, no backsliding**
4) Ambitious **budgets**
5) Investments into **knowledge and administration**
6) Suitable indicators to ensure **accountability**
7) Sufficiently detailed Strategic Plans to suit **local needs** and show **adaptive capacities**

iDiv UFZ

Outcomes III: Implementation

Member States should…

- **Close mapping gaps**
- **Expand monitoring** of biodiversity, water use and chemical inputs
  → Monitoring efforts proportionally to investments & impacts of instruments!
  → Key indicators to add: butterflies, pollinators, High Nature Value Farmlands
- **Expand knowledge support systems**
- **Report yearly**
- **Make data accessible**
- Employ adaptive management: monitor performance and update yearly.

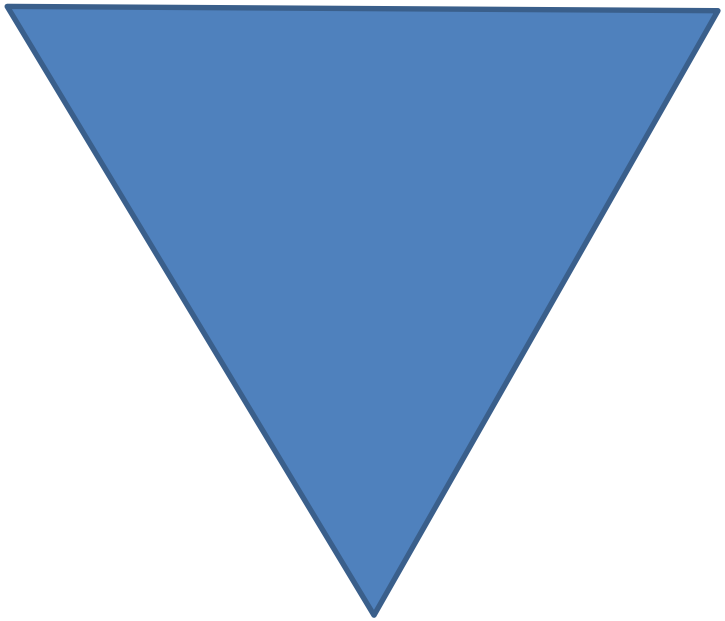

iDiv UFZ

The political reality: trilogue negotiations

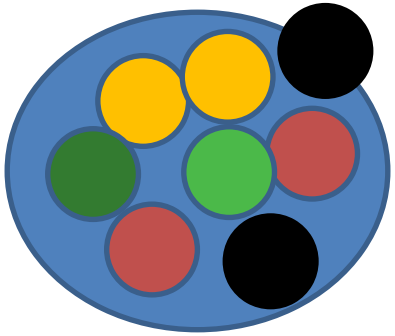
2018

Commission

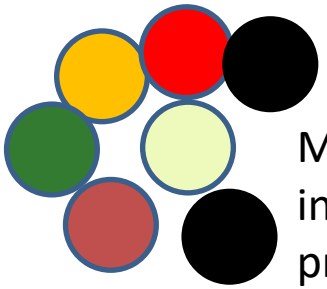
Bound to the 2018 proposal of the previous Commission



Parliament



MSs + party impacts + individual interests, including conflicts of interest



Council

MSs: diverse interests and pressures

iDiv UFZ

Final negotiation agreements: Hard to assess the CAP 2023-2027

- **Enhanced conditionality:** Only slightly „enhanced“
- **Eco-schemes:** Success or failure will depend on contents
- **AECM:** Budgets may increase: depends on MS decisions
- **Areas facing Nature Constraints:** Still in environmental envelop (at 50%)
- Many **harmful subsidies** remain or even expand
- Monitoring of agrochemical remains insufficient
- Article 92: tool for the Commission to demand ambition

The ball is largely at the hands of Member States

– most of whom are lacking ambition and/or capacities

iDiv UFZ

The devil is in the details

Example Eco-schemes‘ proposal Germany

1. Nichtproduktive Flächen auf Ackerland
2. Altgrasstreifen oder -flächen in Dauergrünland
3. **Anlage von Blühstreifen oder -flächen auf Ackerland sowie in Dauerkulturen**
4. Anbau vielfältiger Kulturen im Ackerbau
5. Beibehaltung einer agroforstlichen Bewirtschaftungsweise auf Ackerland und Dauergrünland
6. Extensivierung des gesamten Dauergrünlands des Betriebs
7. Ergebnisorientierte extensive Bewirtschaftung von Dauergrünlandflächen mit Nachweis von mindestens vier regionalen Kennarten
8. Bewirtschaftung von Acker- oder Dauerkulturflächen des Betriebs ohne Verwendung von chemisch-synthetischen Pflanzenschutzmitteln

iDiv UFZ

The devil is in the details

Example Eco-schemes' proposal Germany

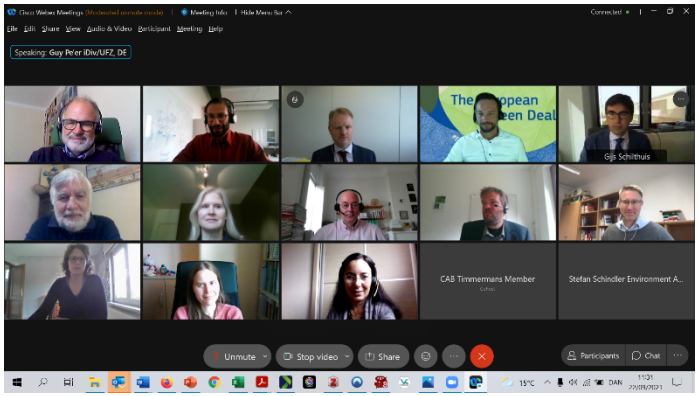
1. Nichtproduktive Flächen auf Ackerland (***No****n-productive areas on arable land)*
2. Altgrasstreifen oder -flächen in Dauergrünland *(Old grass strips/parcels on grassland)*
3. **Anlage von Blühstreifen oder -flächen auf Ackerland sowie in Dauerkulturen** *(Planting flowering strips/parcels on arable land and in permanent crops)*
4. Anbau vielfältiger Kulturen im Ackerbau *(Crop diversity in arable land)*
5. Beibehaltung einer agroforstlichen Bewirtschaftungsweise auf Ackerland und Dauergrünland *(Maintain agroforestry management on arable land and permanent grassland)*
6. Extensivierung des gesamten Dauergrünlands des Betriebs *(Extensify all permanent grassland on the farm level)*
7. Ergebnisorientierte extensive Bewirtschaftung von Dauergrünlandflächen mit Nachweis von mindestens vier regionalen Kennarten *(Results-oriented extensive management of permanent grassland with evidence of at least four regional indicator species)*
8. Bewirtschaftung von Acker- oder Dauerkulturflächen des Betriebs ohne Verwendung von chemisch-synthetischen Pflanzenschutzmitteln *(Management of arable or permanent crop areas of the farm without the use of synthetic chemical plant protection products).*

- **Large proportion of the budget is likely to be lost, some parts even harmful**

- **Collective Eco-scheme missing**

iDiv UFZ

What can we do?



1) Be proactive, offer help

- Contact ministries, consult interested farmers
- Assess Strategic Plans, especially Eco-schemes

2) Use science…

- to mediate/moderate: concensus seeking rather than a polarized debate
- to promote win-wins (e.g. collaborative implementation)
- to identify and address misinformation

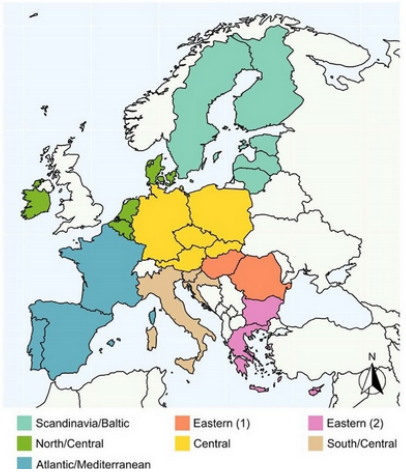
3) Communicate

- the needs of bees and butterflies
- the joint interests of all of us

4) Expand monitoring efforts

- Including Citizen Science

SPRING project



5) Place demands for:

- evidence-based policy
- action
- transparency

iDiv UFZ

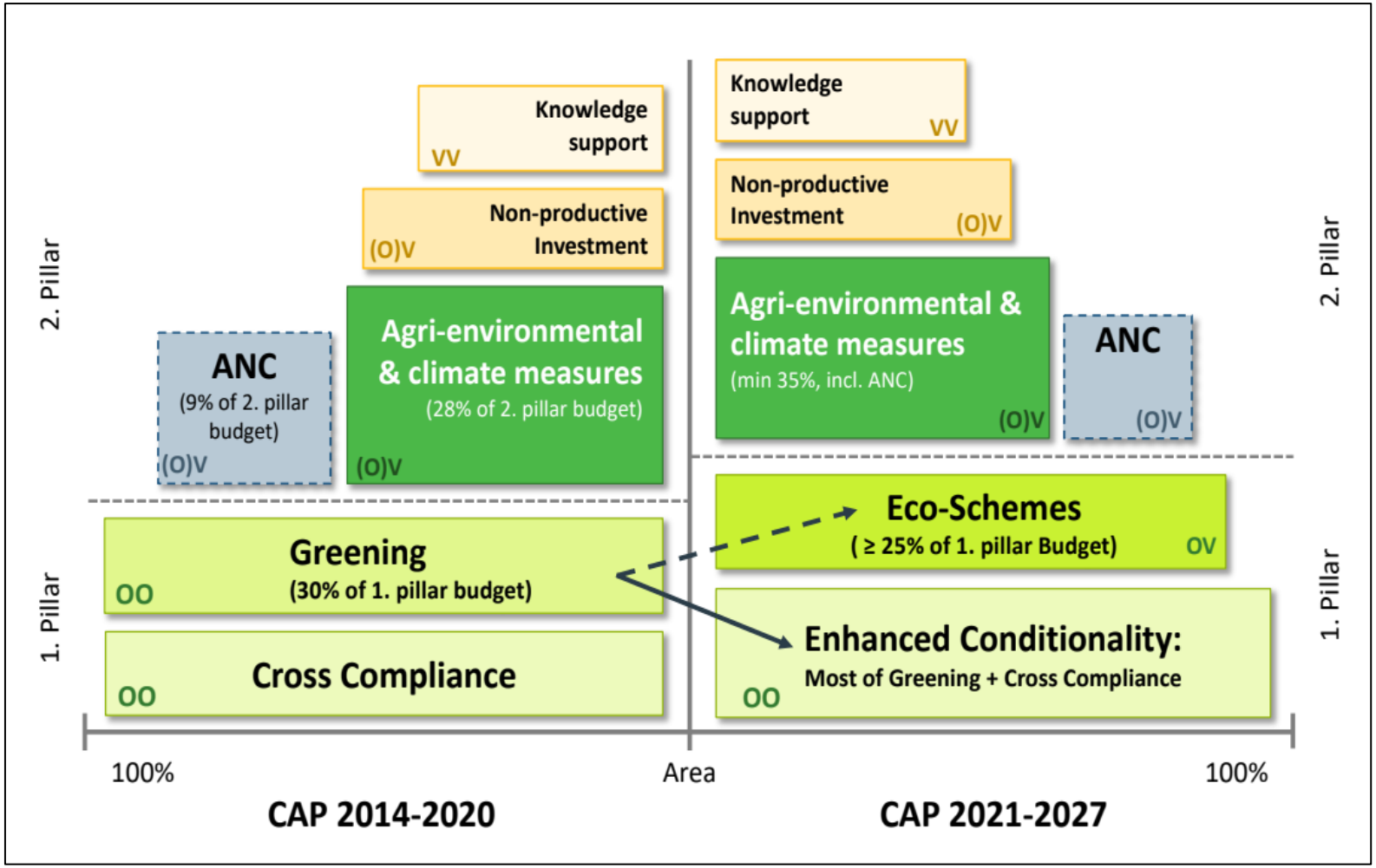
Thank you

guy.peer@idiv.de

Projects:

- iCAP-BES
- GrazeLife
- Birds@Farmlands
- VielFalterGarten
- CAP4GI
- BMS-IL

iDiv UFZ


2. Pillar
1. Pillar
Knowledge support
VV
Non-productive Investment
(O)V
Agri-environmental & climate measures
(28% of 2. pillar budget)
(O)V
ANC
(9% of 2. pillar budget)
(O)V
Greening
(30% of 1. pillar budget)
OO
Cross Compliance
OO
Knowledge support
VV
Non-productive Investment
(O)V
Agri-environmental & climate measures
(min 35%, incl. ANC)
(O)V
ANC
(O)V
Eco-Schemes
(≥ 25% of 1. pillar Budget)
OV
Enhanced Conditionality:
Most of Greening + Cross Compliance
OO
2. Pillar
1. Pillar
100%
Area
100%
CAP 2014-2020
CAP 2021-2027