

# NÖK Hessen - A regional network for organic agriculture and compost

CORE - Thematic seminar and study visit, 10.09.2024

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Gefördert durch:

HESSEN



Hessisches Ministerium für  
Landwirtschaft und Umwelt,  
Weinbau, Forsten, Jagd und  
Heimat

ÖKO  
AKTIONS  
PLAN.



# Outline

network  
coordination:



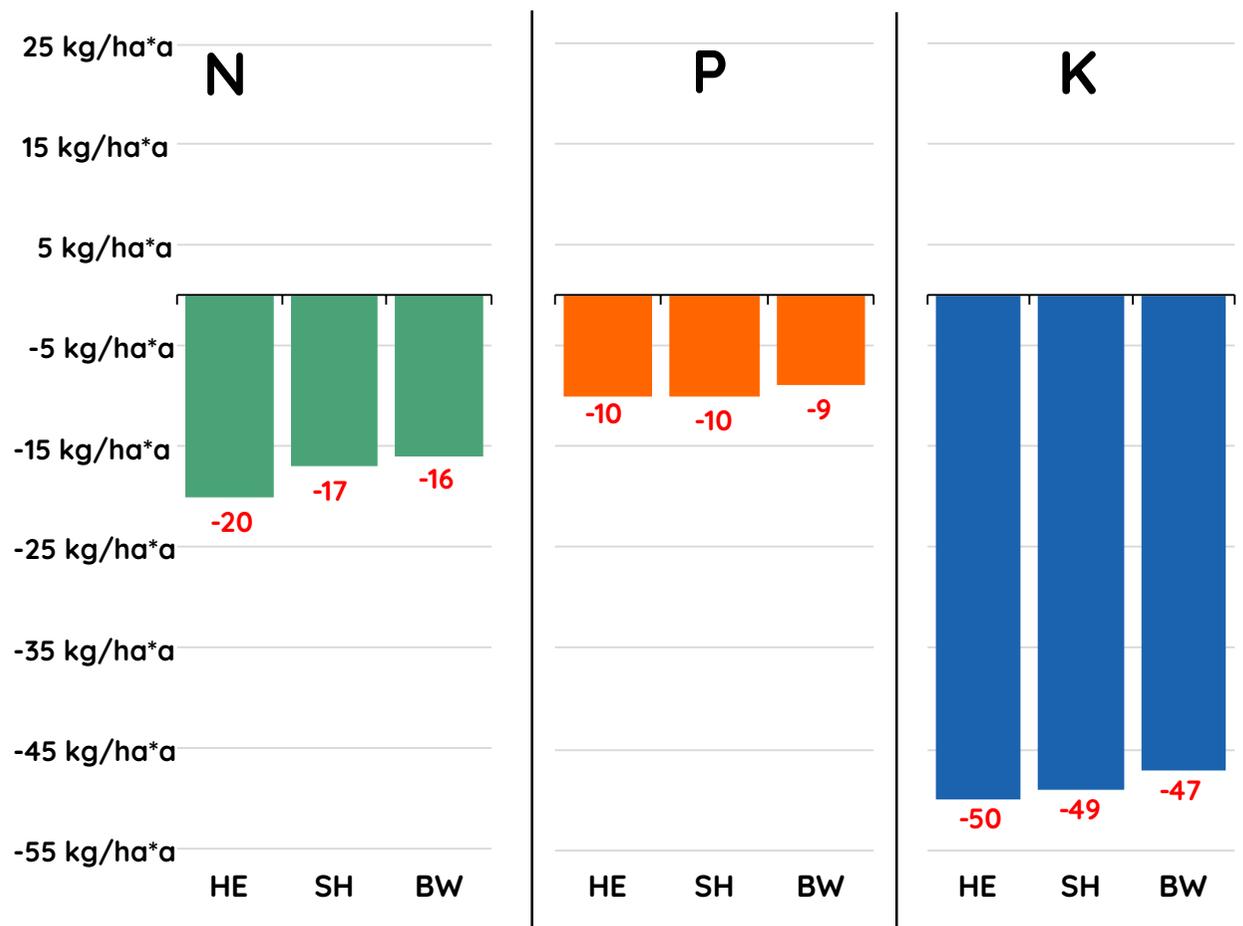
- Focus on organic agriculture
- Necessity for a network for organic agriculture and compost in Hesse (NÖK Hessen)
- Aims and structure of NÖK Hessen
- Activities within NÖK Hessen
- Meeting the aims of NÖK Hessen – interim results
- Conclusions and outlook

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# Nutrient balances in organic agriculture without external fertilizer supply (Richter und Gottschall, 2020)



nutrient balances in organic agriculture



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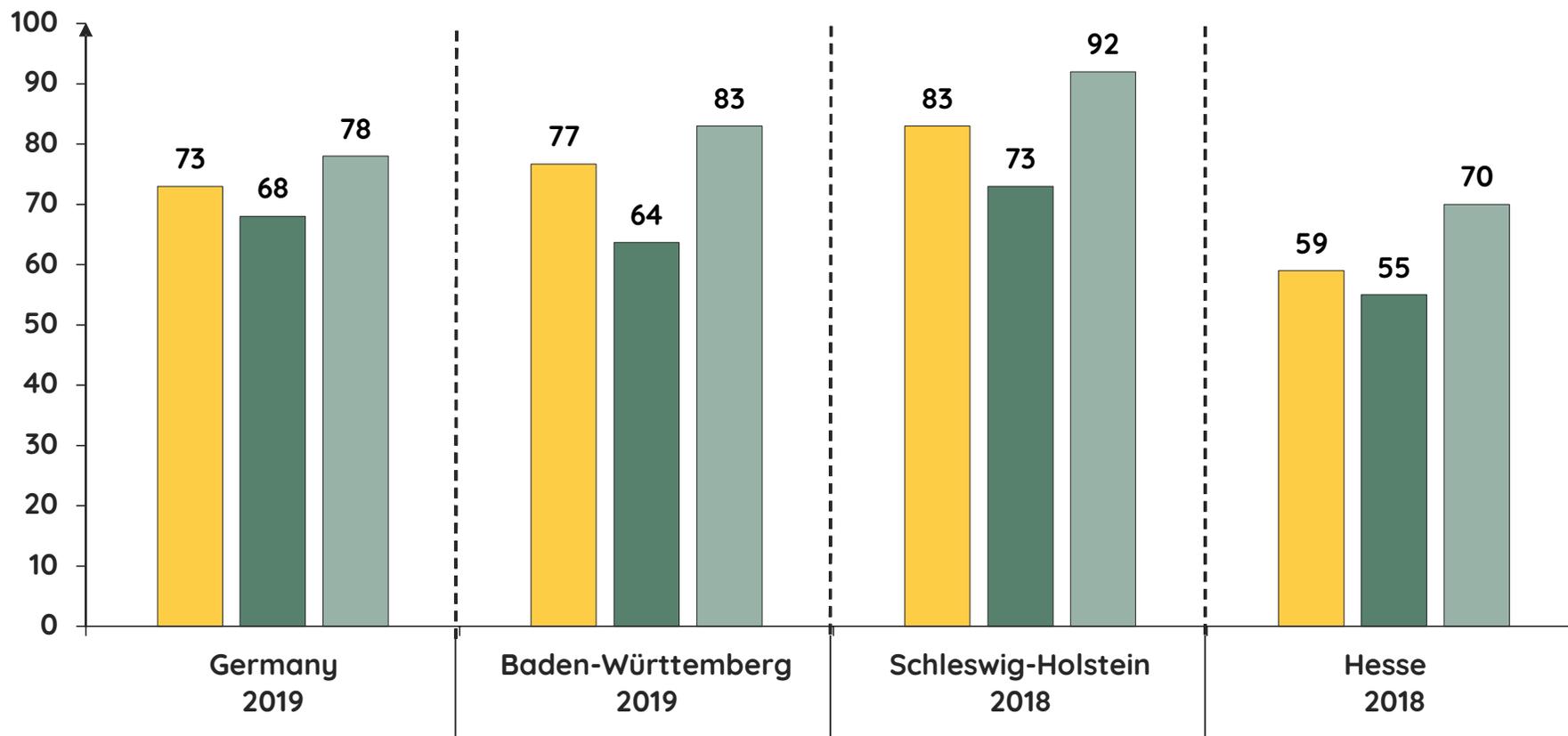


# Suitability of RAL quality-assured biowaste and green waste composts for organic agriculture<sup>1)</sup>

(Gottschall und Thelen-Jüngling, 2019/2020)

Share of suitable composts <sup>1)</sup> in all composts according to RAL-GZ 251 (%)

■ All Composts   ■ Biowaste composts   ■ Green waste composts



<sup>1)</sup> According to EU-organic production-regulation (Regulation (EU) No. 2018/848 and 2023/2229, App. 2) and to Bioland/Naturland guidelines

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# Quality-assured biowaste and green waste composts suitable for organic agriculture

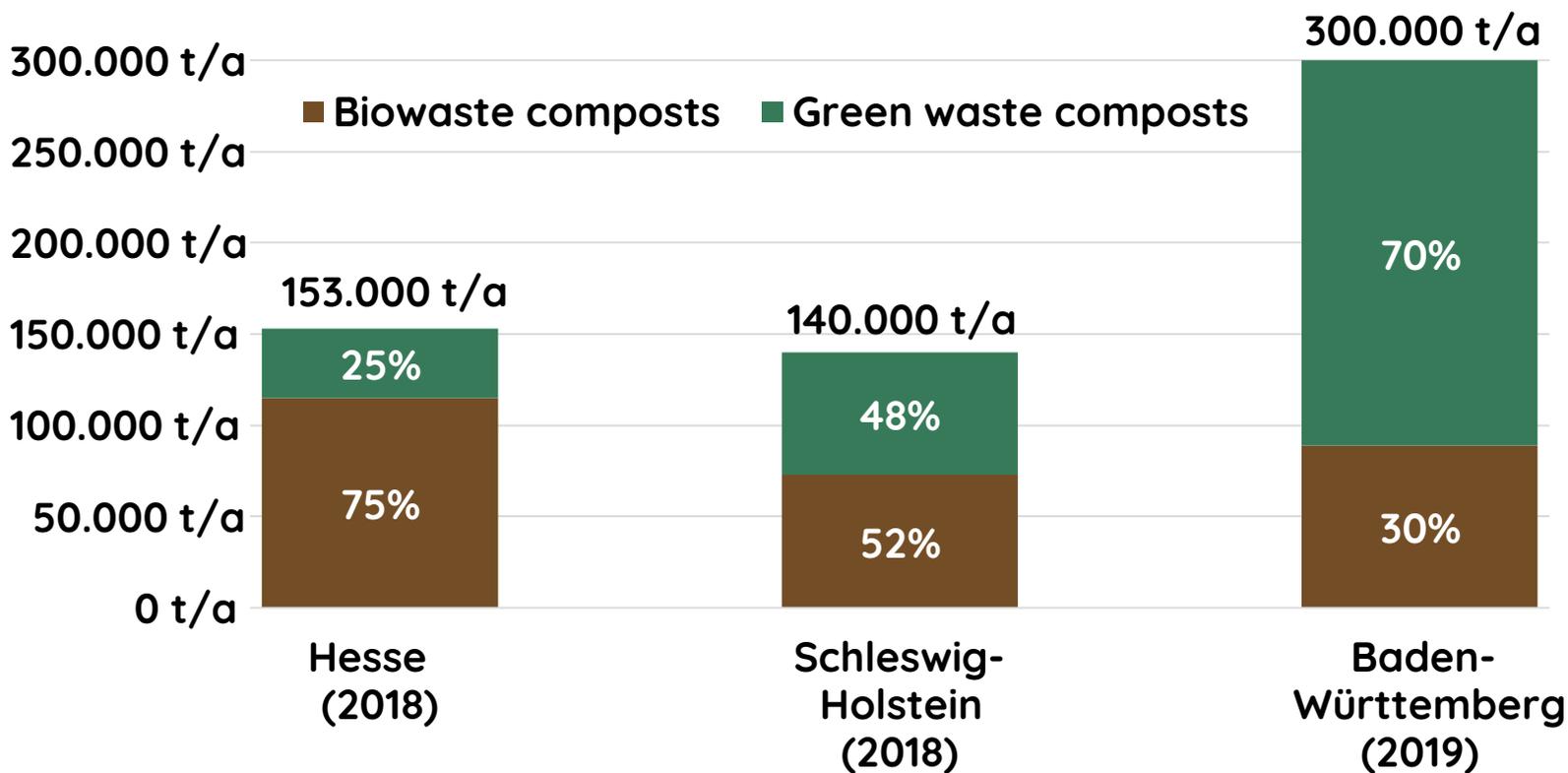
*(Richter und Gottschall, 2020)*

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# Potential of suitable biowaste and green waste composts to compensate for negative nutrient balances in organic agriculture

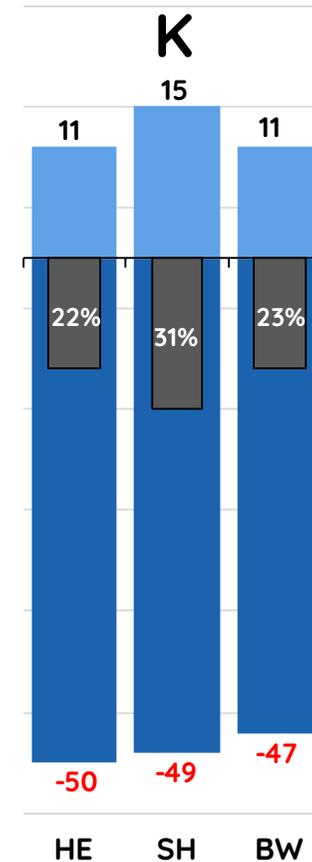
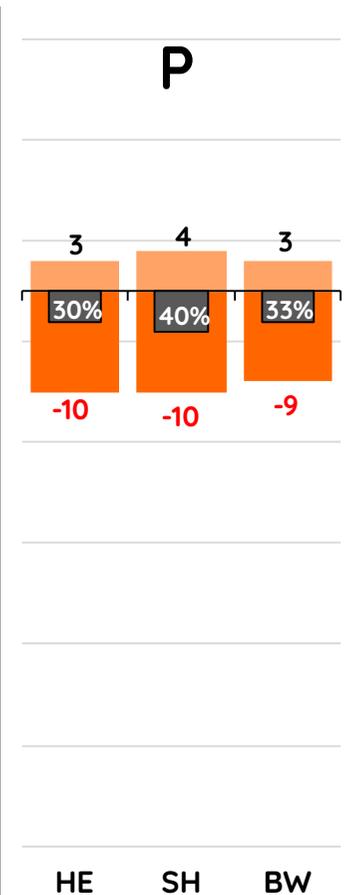
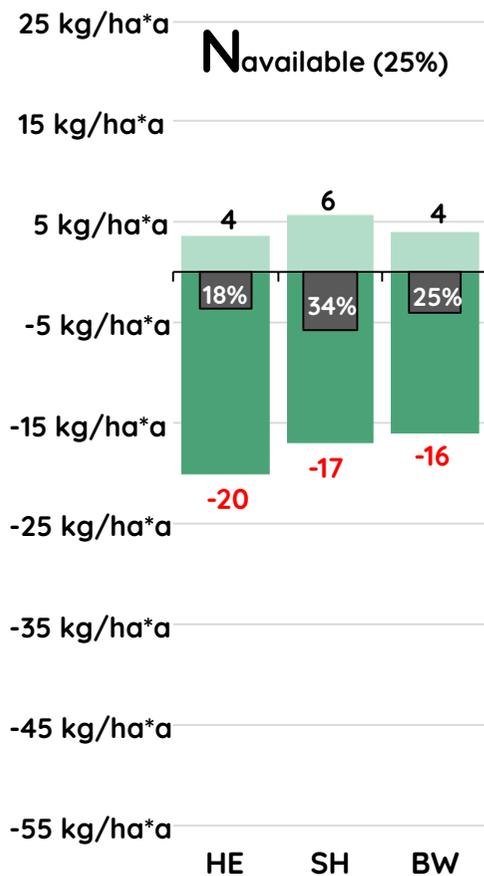
(Richter und Gottschall, 2020)

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Nutrients in composts suitable for organic agriculture from bio waste (BW) and green waste (GW)

Proportion of the nutrient balance in organic agriculture that can be balanced by nutrients in composts from BW and GW

nutrient balances in organic agriculture



# Necessity for a network for organic agriculture and compost in Hesse (NÖK Hessen)

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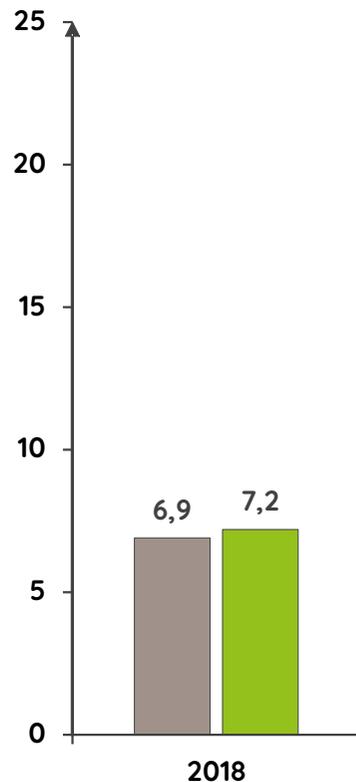


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8

Sales share of organic agriculture in compost  
volume suitable for organic agriculture (%)



- **Compost potential for organic agriculture is not well exploited**
- “In order to realize a fast and efficient use of this potential in practice and thereby support the expansion of organic agriculture in Hesse, **the establishment of a network of organic agriculture and compost industry is necessary.**”
- In this way, the **following obstacles** can be overcome:
  - **lack of information in organic agriculture** on product characteristics, quality, sources of supply, application possibilities and limits
  - **lack of information in the compost industry** on requirements and framework conditions in organic agriculture as well as concerns regarding the necessary operational adaptations investments
  - **lack of mutual trust and of communication** at all levels

# Aims and structure of the network for organic agriculture and compost in Hesse (NÖK Hessen)

- Comprehensive and sustainable utilization of biowaste and green waste composts in organic agriculture
  - Closing nutrient gaps
  - Supporting humus formation
  - Supporting climate protection and climate resilience
- Networking of stakeholders on several levels:
  - Companies (organic farms and composting plants)
  - Associations & consulting/quality support
- Creation of a joint working and information platform
- Development of further suitable secondary raw material fertilizers for organic farming, in particular digestate and wood ash

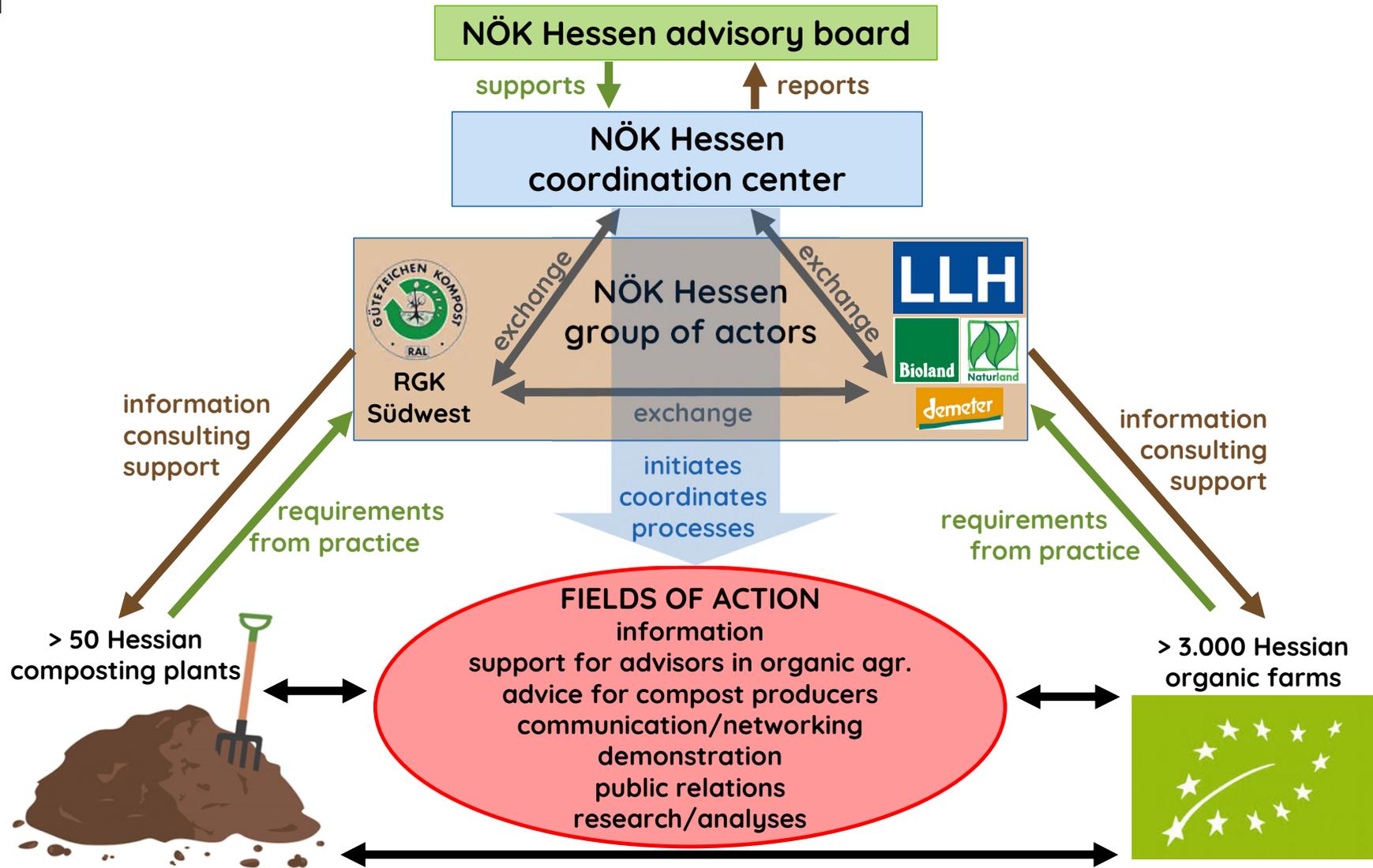
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# Aims and structure of NÖK Hessen



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➤ **Homepage:**  
[www.noek-hessen.de](http://www.noek-hessen.de)

➤ **Newsletter:**

- 4 issues per year
- approx. 600 subscribers

**Newsletter** Q4 2022

NETZWERK ÖKOLANDBAU UND KOMPOST IN HESSEN

[www.noek-hessen.de](http://www.noek-hessen.de)  
[info@noek-hessen.de](mailto:info@noek-hessen.de)

**Okofeldtage 2022**  
Hier berichten wir darüber, wie das NÖK Hessen auf den Okofeldtagen 2022 (28.-30. Juni) aktiv war.  
**Seite 2**

**Anlagenporträt**  
In jedem Newsletter finden Sie hier ein Porträt einer Kompostierungsanlage. Diesmal: Entsorgungszentrum Lohfelden.  
**Seite 3**

**Interview mit einem Kompostanwender**  
Parallele zum Anlagenporträt finden Sie hier den Bericht eines Ökobetriebs, der Kompost von dieser Anlage bezieht. Diesmal: Martin Homburg aus Alfnatal.  
**Seite 4**

**Zahlen & Fakten**  
Hier finden Sie aktuelle Zahlen und Fakten zum Thema Bio- und Grüngutkompost für den Ökolandbau.  
**Seite 5**

**Termine**  
Hier finden Sie aktuelle Termine des NÖK Hessen und anderer Institutionen/Projekte zum Thema Kompost im Ökolandbau.  
**Seite 5**

**NÖK HESSEN NEWS**  
Das NÖK Hessen ist als vierjähriges Anschubprojekt zur Förderung des Einsatzes von Bio- und Grüngutkomposten in der Landwirtschaft im Januar 2022 gestartet. Das Vorhaben wird im Rahmen des Ökokooperationsplans Hessen vom hessischen Umweltministerium (HMUKLV) gefördert. Dieser Newsletter informiert Sie regelmäßig, welche aktuellen Themen im NÖK Hessen vorrangig bearbeitet werden.  
Die ersten Monate nach dem Start des NÖK Hessen standen ganz im Zeichen des Aufbaus aller Arbeits- und Kommunikationsstrukturen sowie der ersten Schritte zur Konzeptionierung unserer Homepage.  
Am 05.04.2022 fand die erste größere Veranstaltung statt, ein mehrstündiges Forum zum NÖK Hessen mit sechs Vorträgen und ca. 80 diskutierfreudigen Teilnehmenden auf dem 33. Kasseler Abfallforum.  
In den darauf folgenden Wochen arbeiteten wir intensiv an einem Projektplan und an unserer Homepage. Ende Juni, rechtzeitig vor Beginn der Okofeldtage 2022 auf dem Gipelschloß in Vilmar-Aumenau (siehe ausführlicher Bericht auf Seite 2) wurde der Flyer fertiggestellt und die Homepage ging online.  
Im Sommer und Herbst wurde unter anderem an der Zusammenstellung der NÖK Hessen Demo-Cluster gearbeitet. Diese Demo-Cluster, von denen es vier Stück verteilt über ganz Hessen geben wird, bestehen jeweils aus 1-2 Kompostierungsanlagen und mehreren Ökobetrieben, die von diesen Anlagen Bio- oder Grüngutkompost beziehen. Ziel der Demo-Cluster ist es, als Plattform für Multiplikation, Wissenstransfer und Öffentlichkeitsarbeit zu dienen.



ÜBER NÖK KOMPOST ANLAGEN AUS DER PRAXIS MEDIEN AKTUELLES TERMINE  
ÖKO-FELDTAGE JAHRESBERICHTE NÖK INTERN KONTAKT **NEWSLETTER**



- Podcasts
- Publications in professional journals

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# Support for advisors in organic agriculture

- **Seminars for specialist advisors**

(cultivation associations,  
Landesbetrieb Landwirtschaft Hessen)

- Compost basics
- Workshops
- Practical exercises for advising farms on the use of compost using example crop rotations and example composts
- Compost plant inspections

- **Compost consultation hour**  
for specialist advisors (online)



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Witzhausen-Institut



**VÖL**  
Vereinigung Ökologischer  
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# Advice for compost producers

- **Contacting the composting plants**
  - About 85 % of plant operators were interested in working together
- **Preparation of consultation appointments**
  - Annual analyses of the composts -> Identifying “sensitive/problematic” parameters
- **Implementation of the plant tours (2-4 composting plants per tour)**
  - Already six tours in 12 of 21 districts in Hesse
- **Follow-up work/support for the marketing launch**
  - Additional restrictions (e.g. higher demand for storage space) offset by opportunities (improved sales security and added value, image gain)

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# Communication/networking

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„Hotspot Compost“ at the Organic Field Days 2022 and 2023 with BGK, University Kassel and more on 500 m<sup>2</sup> (in- & outdoor)



- exhibition stands
- poster sessions
- presentations
- workshops
- guided tours
- composts „to touch“

# Demonstration

## NÖK Hessen: HF 5 - Demonstration ("Demo-Cluster")

-  Kompostanlagen [6]
-  Ökolandbau-Betriebe [15]
-  Hessen

### Ökolandbaubetriebe / Anlagen

#### 1 Cluster Nord

Vergärungs-/Kompostanlage / Lohfelden  
Entsorgungszentrum / Hofgeismar

**1**

Martin Homburg / Ahnatal  
Ottmar Rudert / Liebenau  
Niis Tolle / Calden-Fürstenwald  
Thomas Kloppmann / Zierenberg

#### 2 Cluster Mitte West

Vergärungs-/Kompostanlage / Cyriaxweimar

**2**

Jens Amend / Staufenberg  
Biohof Fries-Herbst / Münchhausen  
Hof Eselsmühle / Lohra

#### 3 Cluster Mitte Wetterau

Grüngutkompostierung Altenstadt  
Humus- und Erdenwerk Ilbenstadt

**3**

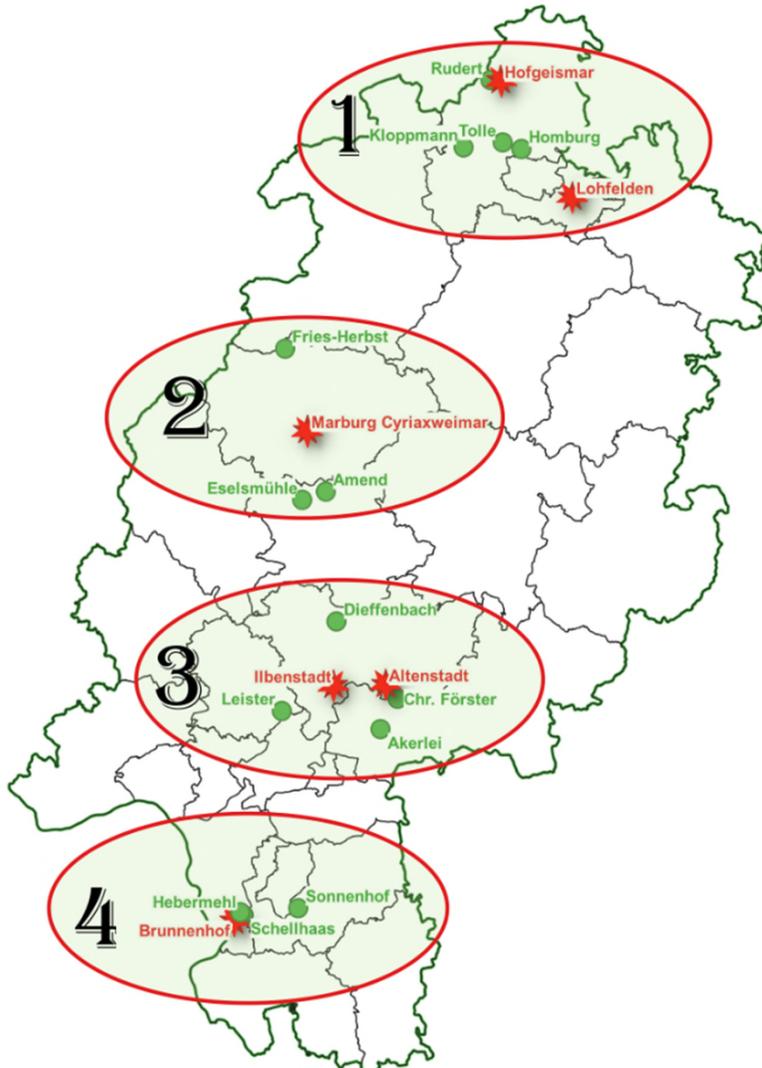
Biohof Akerlei / Bruchköbel  
BioHof Dieffenbach / Wölfersheim  
Christoph Förster / Büdingen  
Stefan und Michel Leister / Bad Homburg

#### 4 Cluster Süd

Kompostierungsanlage Brunnenhof / Biebesheim

**4**

Sonnenhof – Grüner Bereich / Mühlthal  
Biolandhof GbR – Schellhaas / Crumstadt  
Tobias Hebermehl / Riedstadt



## Aims

1. Demonstrate that successful cooperation between the compost industry and organic farming is possible
2. Demonstrate how this cooperation works in practice
3. Platform for multiplication, knowledge transfer and public relations work

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# Demonstration

- Field day in the „Demo-Cluster Mitte“ at „Hof Eselsmühle“ in Lohra, 6.9.23



- Field day in the „Demo-Cluster Nord“ at „Hof Tolle“ in Calden, 8.9.23



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# Meeting the aims of NÖK Hessen - interim results

## Certification for the marketing of composts to organic farms

(Gottschall, 2024)

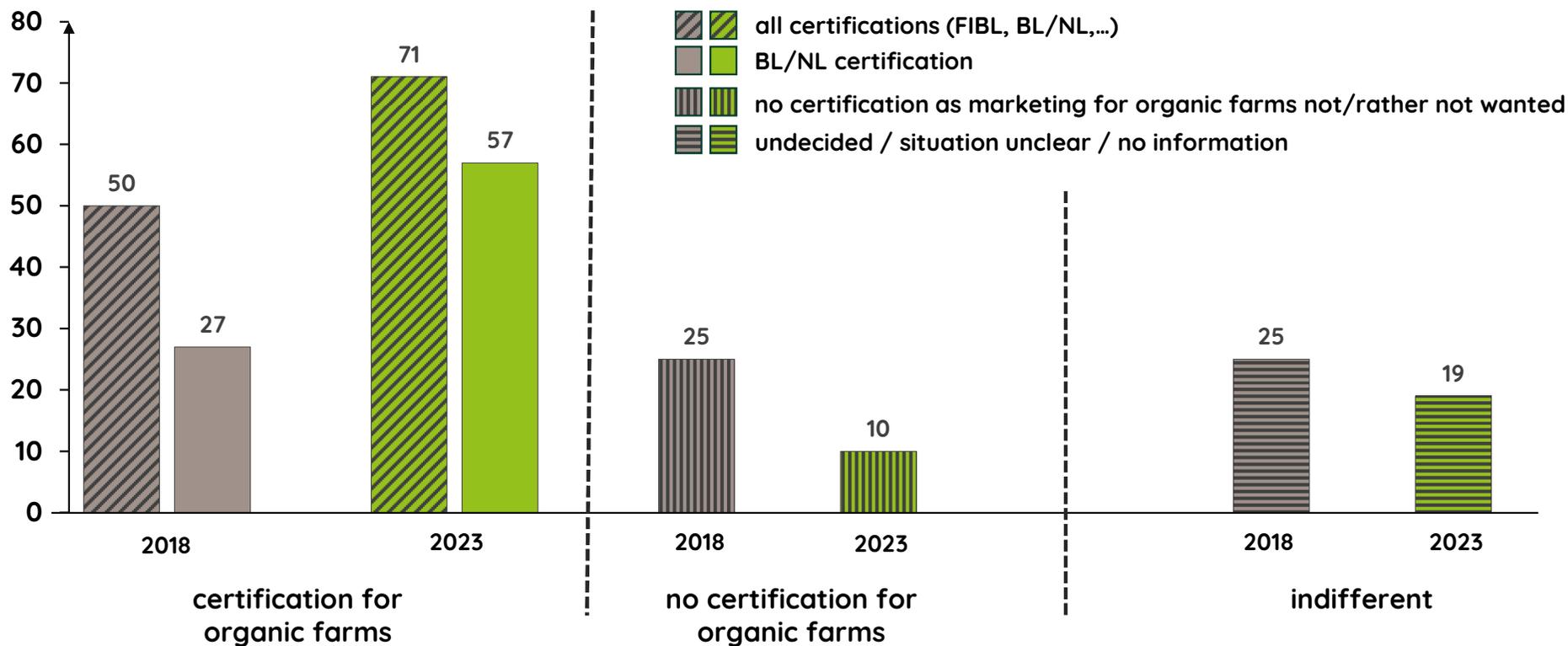
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### % of composting plants



# Meeting the aims of NÖK Hessen – interim results

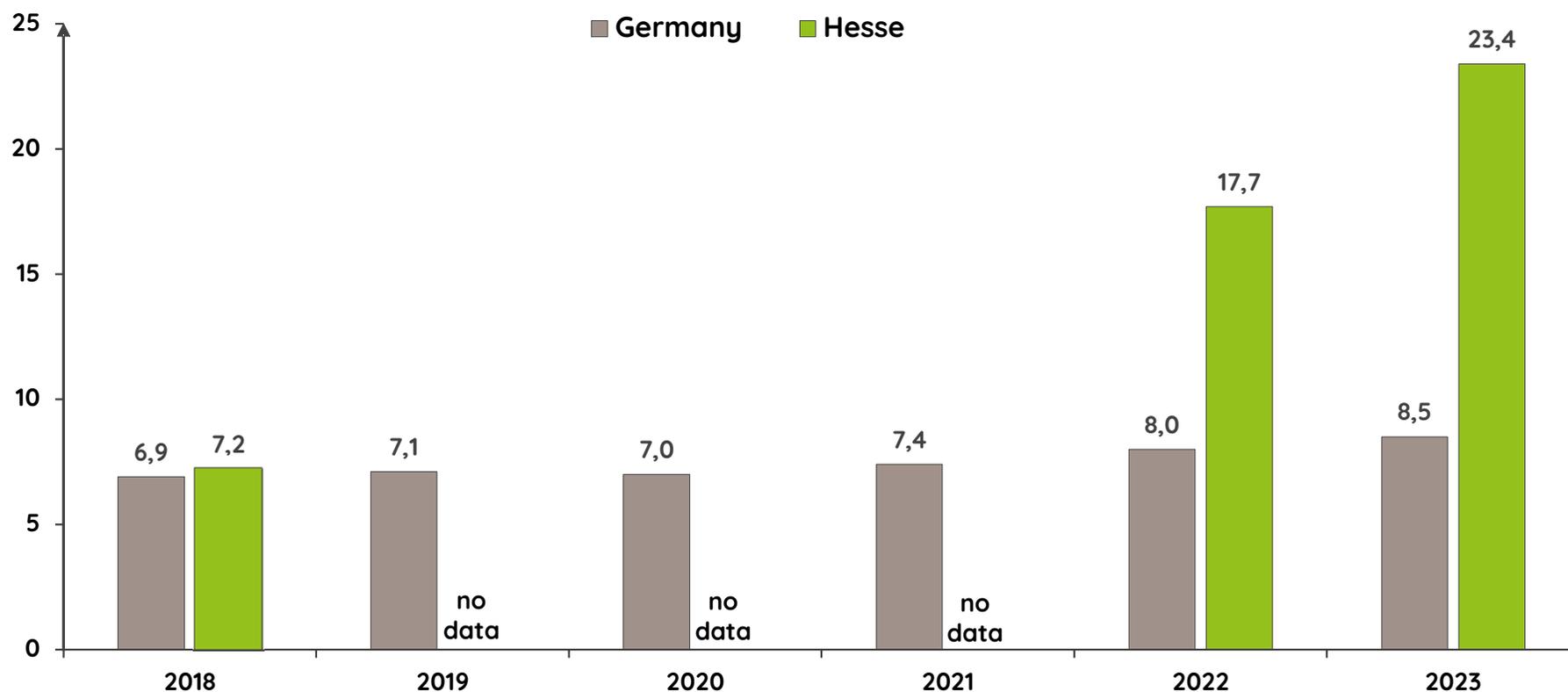
## Sales of biowaste and green waste composts to organic agriculture in Germany and Hesse - preliminary evaluation

(Gottschall und Thelen-Jüngling, 2024)

Netzwerk-  
koordination:



Sales share of organic agriculture in compost volume suitable for organic agriculture (%)



# Conclusions and outlook

- Without external nutrient supply, **organic farms have negative nutrient balances** of approx. 20 kg N/ha, 10 kg P/ha and 50 kg K/ha per year on average for all farms in Hesse, Schleswig-Holstein and Baden-Württemberg (large differences depending on the type of farm)
- Approx. **70 % of RAL quality-assured composts are suitable for use in organic agriculture** (according to Bioland/Naturland guidelines)
- Composts suitable for organic farming can **compensate for a significant proportion of the external nutrient requirements** in organic agriculture
- However, **only 7% of this nutrient potential is utilized nationwide**
- The **targeted growth of organic farming with a tripling of the area nationwide by 2030** will also lead to a corresponding increase in external nutrient requirements
- **Organic farming and compost networks (NÖK)** are required as an information and working platform for networking all relevant stakeholders
- **NÖK Hessen can look back on two very successful years** with many activities and high demand
- Other German states are interested in **developing a NÖK**, corresponding activities are currently taking place in **Saxony, Baden-Württemberg and Rhineland-Palatinate**

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Thank you very much  
for your attention !  
...and your questions