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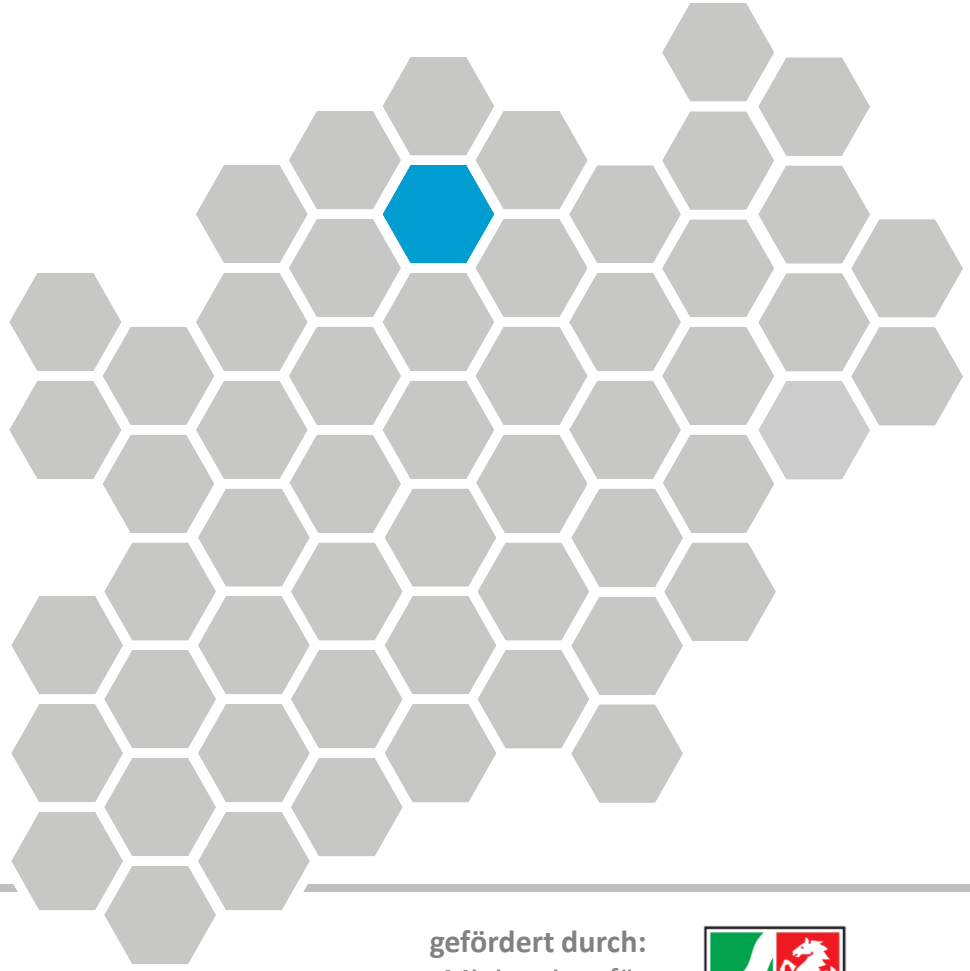
NRW State Research Report

Genesis, Implementation & Lessons Learned

What really went wrong in practice – and how we (partly) solved it



Ponta Delgada, 20.05.26
Dr. Malte Kramer, Eva Frechen

Konsortialführung durch die
Universität Münster

Ein Kooperationsvorhaben der
DIGITALE HOCHSCHULE NRW

gefördert durch:
Ministerium für Kultur und Wissenschaft des Landes Nordrhein-Westfalen

Context: The Landscape

Federal higher education, state-level reporting, and the actors involved

Germany – Federated Higher Education

- Higher education governed by 16 individual states (Länder)
  – considerable diversity in systems, definitions, and data maturity

North Rhine-Westphalia (NRW)

- Most populous German state (~18 M), 32 public HEIs

Digitale Hochschule NRW (DH.NRW)

- State-wide cooperation framework for digital transformation in higher education

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- DH.NRW initiative for research information
  – acted as **data trustee** for the first NRW State Research Report (lead: University of Münster)

Context: Why a State Research Report?

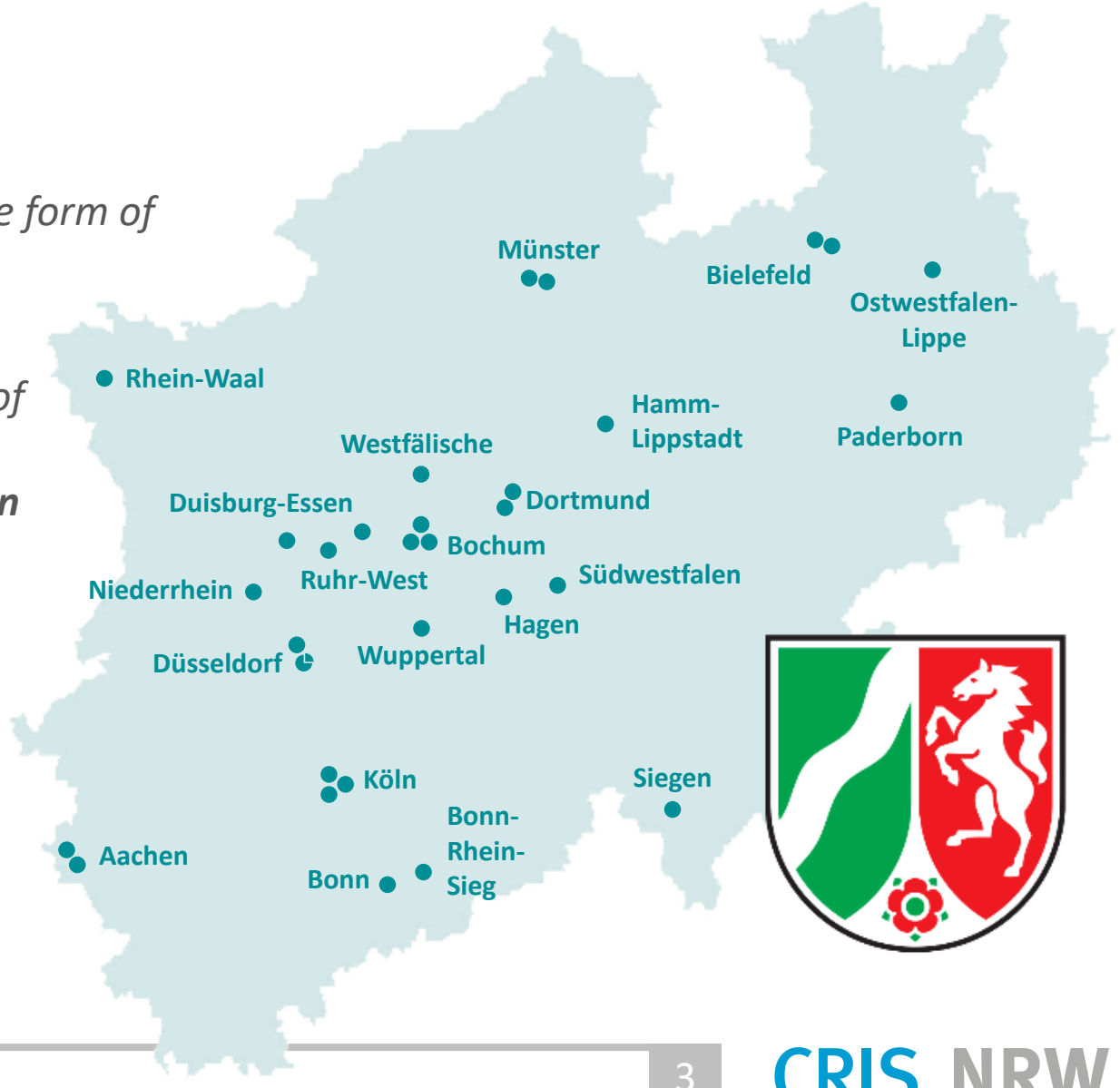
*"The objective is a **state-wide harmonization** of **research reporting** across public higher-education institutions in the form of a **regular joint State Research Report** […]*

*Such a report shall bring together the **information needs** of the **MKW** (on behalf of the political sphere, the press, the interested public) and the **shared strategic communication interests of the universities**."*

NRW: 32 institutions participating (14 universities, 18 UAS)

Mandate: MKW + LRK Uni + LRK UAS

Result: First joint State Research Report published in 2025



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Two Guiding Principles

The two sentences that explain everything else

KDSF
Standard für Forschungsinformationen in Deutschland

KDSF as shared semantics – the standard for definitions, categories, counting rules

(KDSF is the German implementation of CERIF)

Inform, not rank

No rankings, no institution-level comparisons –
instead sector-level aggregation (Uni/UAS) + structured narratives

Both were prerequisites for all 32 institutions to participate

Governance & Data Trusteeship

Who may do what – and who may not

Institutions:

Data sovereignty, delivery,
subject-matter sign-off

MKW (Ministry):

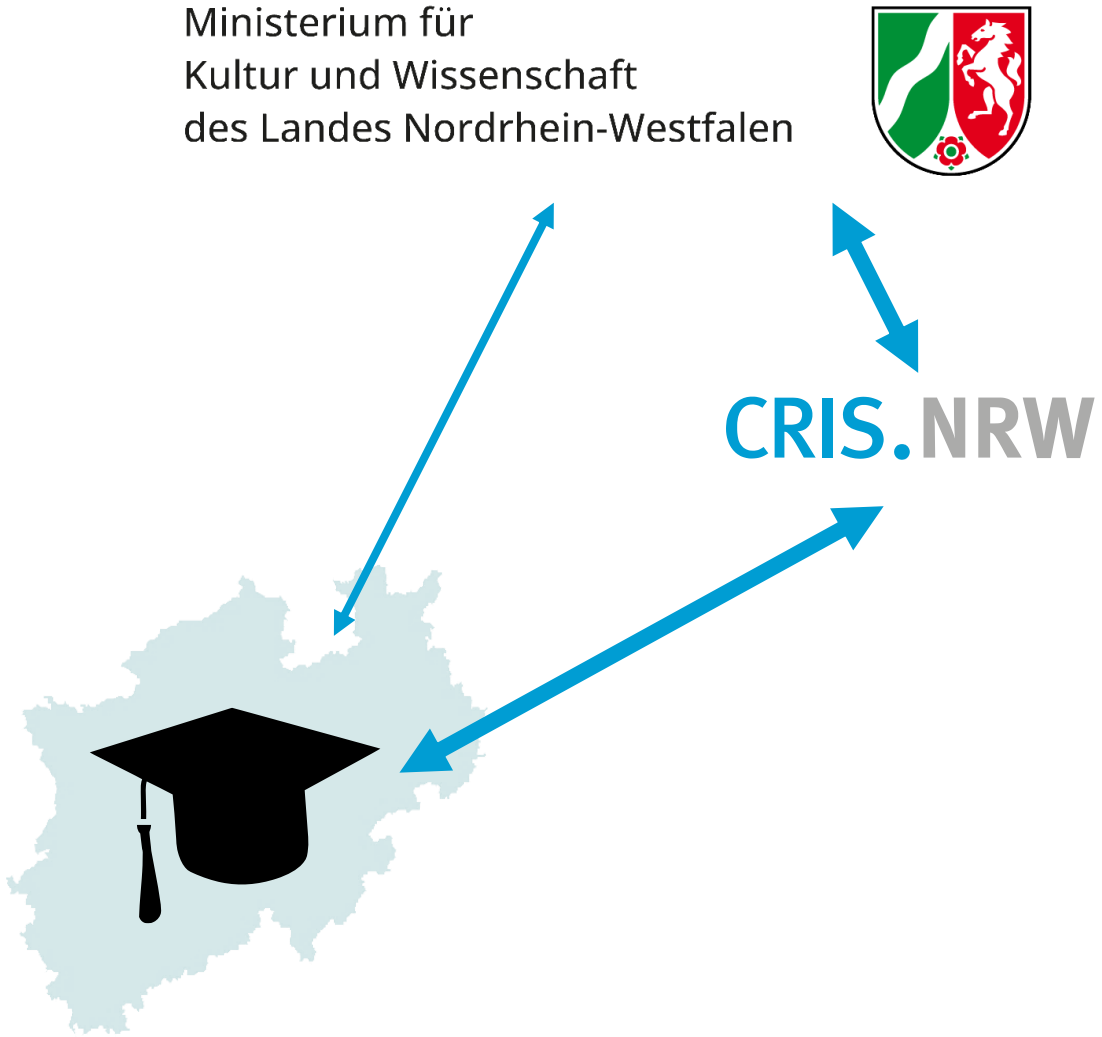
Funding, publication,
no access to raw data(!)

CRIS.NRW (Data Trustee):

Integration, validation, normalization,
aggregation, QA feedback

Trust building:

Clear separation of duties,
“No Surprises” principle,
sign-off workflow



Report Design: Two Parts, Clear Boundaries

Numbers + narratives – within a fixed framework

Part I – Aggregated Indicators (Uni/UAS):

Finances, personnel, third-party funding/projects, state funding lines, doctorates, publications, awards, patents, gender equality

Part II – Institutional Narratives:

Max. 3 KDSF research fields,
fixed text template (2 pages/field),
no custom design

Cadence:

Triennial cycle, each covering a rolling 3-year window

The report is available at: https://www.mkw.nrw/landesforschungsbericht

Highlights

Research highlights at universities and universities of applied sciences from 2021 to 2023

More than

€ 1.600.000.000

research-related third-party funding

per year

More than

100

patents granted

per year

approximately

400

prestigious prizes and awards

per year

3

"Alexander von Humboldt Professorship" awards

in 2023

More than

5.000

doctoral degrees

per year

1

Nobel Prize

in 2021

36

European Research Council Grants

in 2023

66

Collaborative Research Centres / Transregios

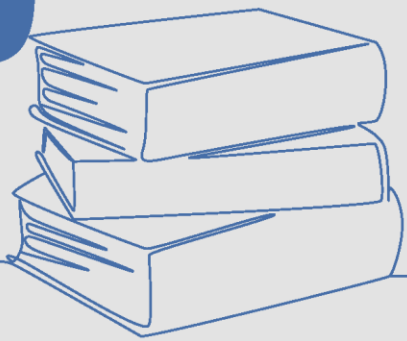
in 2023

More than

56.000

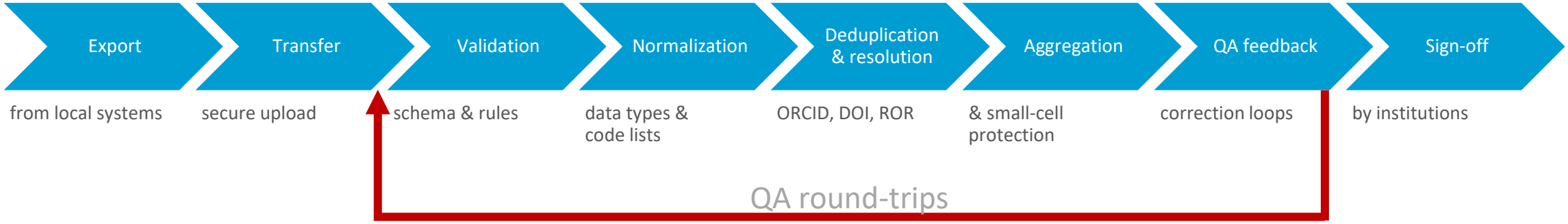
publications

per year



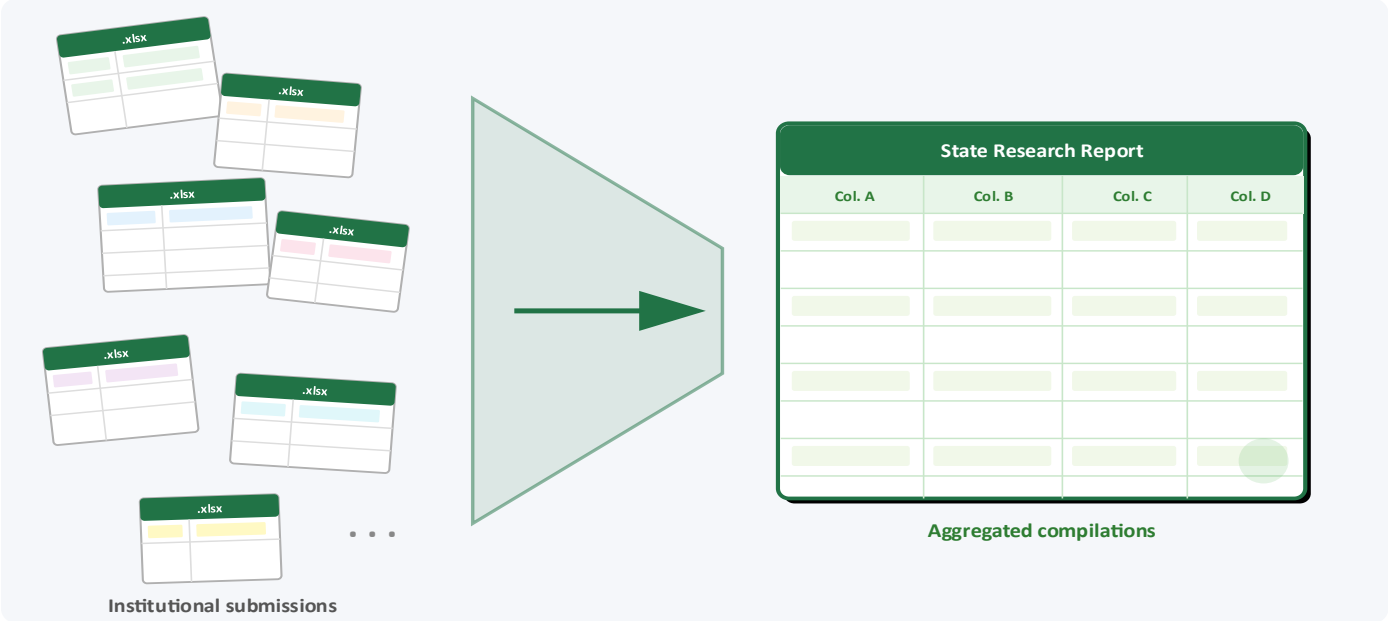
QA Pipeline: From Submission to Publication

Multiple QA round-trips per institution – the rule, not the exception



Data consolidation:

52 protected Excel workbooks
397 validated Excel sheets
734,328 rows, of which
35,301 projects and
2,567 awards



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Challenges: Two Perspectives

What really slowed things down – and what everyone will recognize

Institutional perspective:

- Project counting vs. accounting logic (cost centres ≠ projects)
- Programme lines (DFG/EU)
  often not available in structured form
- Awards/memberships:
  PR lists instead of structured data
- Excel flexibility led to format proliferation

Trustee perspective:

- Schema discipline:
  Flexible spreadsheets = enormous manual effort
- Purpose fit:
  rule-compliant but missing the point
- Without code lists, no programme-level aggregation

Lessons Learned & Blueprint LFB 2.0

The first cycle was a Minimum Viable Report

What worked:

- Data-trustee model with clear role separation
- KDSF as a shared language
- No-ranking principle as trust anchor
- Reusable artifacts (profile, crosswalks, QA templates)
- For the first report, Excel was an excellent tool

Potential for the next cycle:

- Further automate reporting:
  - **Data submission** to CRIS.NRW as a "system report" **from institutional CRIS**
  - **Report production** by CRIS.NRW automated **via central system**
- Prerequisites:
  - **Master data harmonization** and working with **shared master data**: ext. organizations, award master data, funding sources, etc.
  - Systematic data enrichment with **PIDs** (Persistent Identifiers): funder project IDs, DOI, ROR, ORAP-PRIZE-ID, ORCID, …

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Thank you for your attention!

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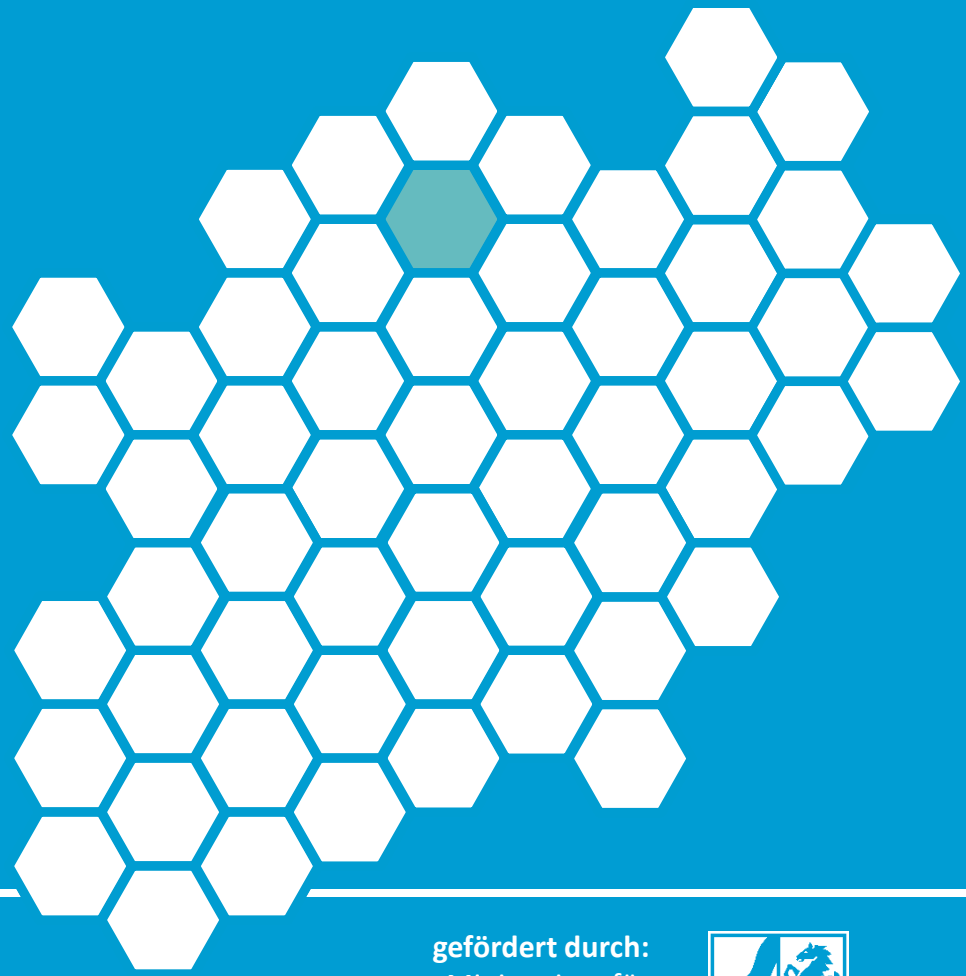

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Transfer: What Can You Take Away?

Transferable patterns for your own reporting initiatives

Governance first

- Clarify roles, data sovereignty, purpose limitation – before collecting data

Trustee model also at smaller scale

- Central unit within the institution as neutral intermediary

KDSF profile as blueprint

- Foundation for local reporting definitions

Schema discipline

- “What is not defined will be creatively interpreted”

Pilot & iteration

- Start small, tighten iteratively