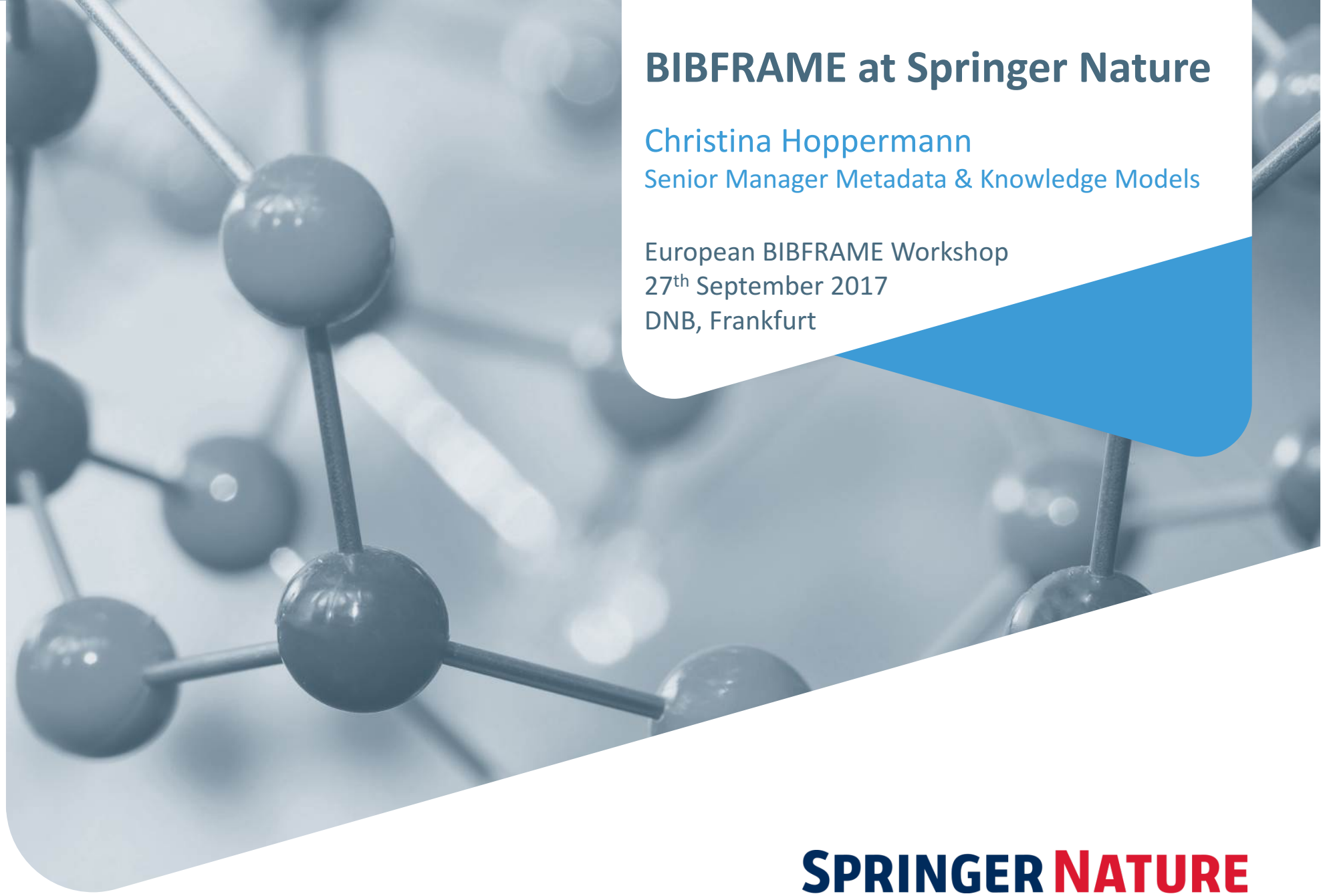


BIBFRAME at Springer Nature

Christina Hoppermann
Senior Manager Metadata & Knowledge Models

European BIBFRAME Workshop
27th September 2017
DNB, Frankfurt

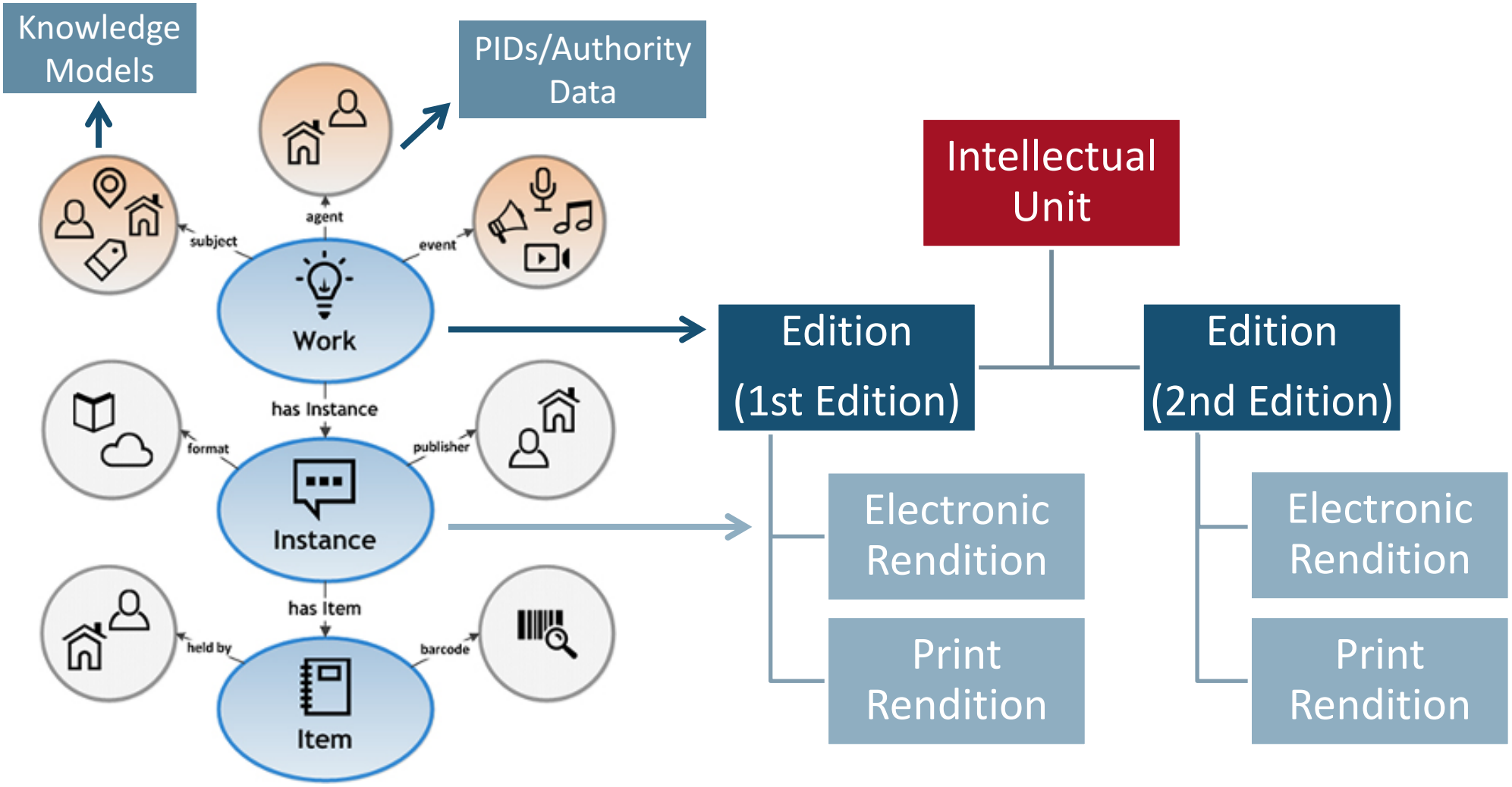
SPRINGER NATURE

Motivation: Why BIBFRAME?

- **Linked Open Data (LOD) is central to our metadata activities**
  - Springer Nature SciGraph (https://www.springernature.com/cn/researchers/scigraph)
- **Support Library Linked Data**
  - Provision increasingly requested by the library community
  - Expert feedback (e.g., SN Metadata Advisory Board, DNB, Canadian Linked Data Initiative)
- **Overcome the risk of data silos**
  - Library Linked Data vs. “webbish” LOD: aim at combining both worlds by our approach
  - Use and link to common vocabularies
  - Collaborate with the relevant communities

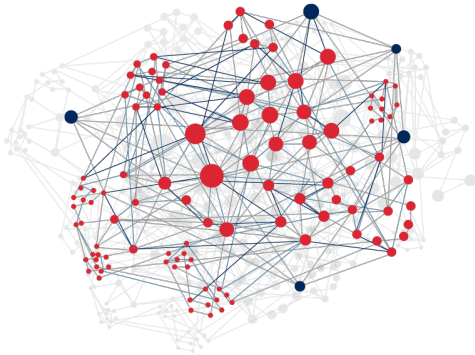
Source: https://www.slideshare.net/rjw/linked-data-in-libraries-44273837 (Richard Wallis: “Linked Data in Libraries“)

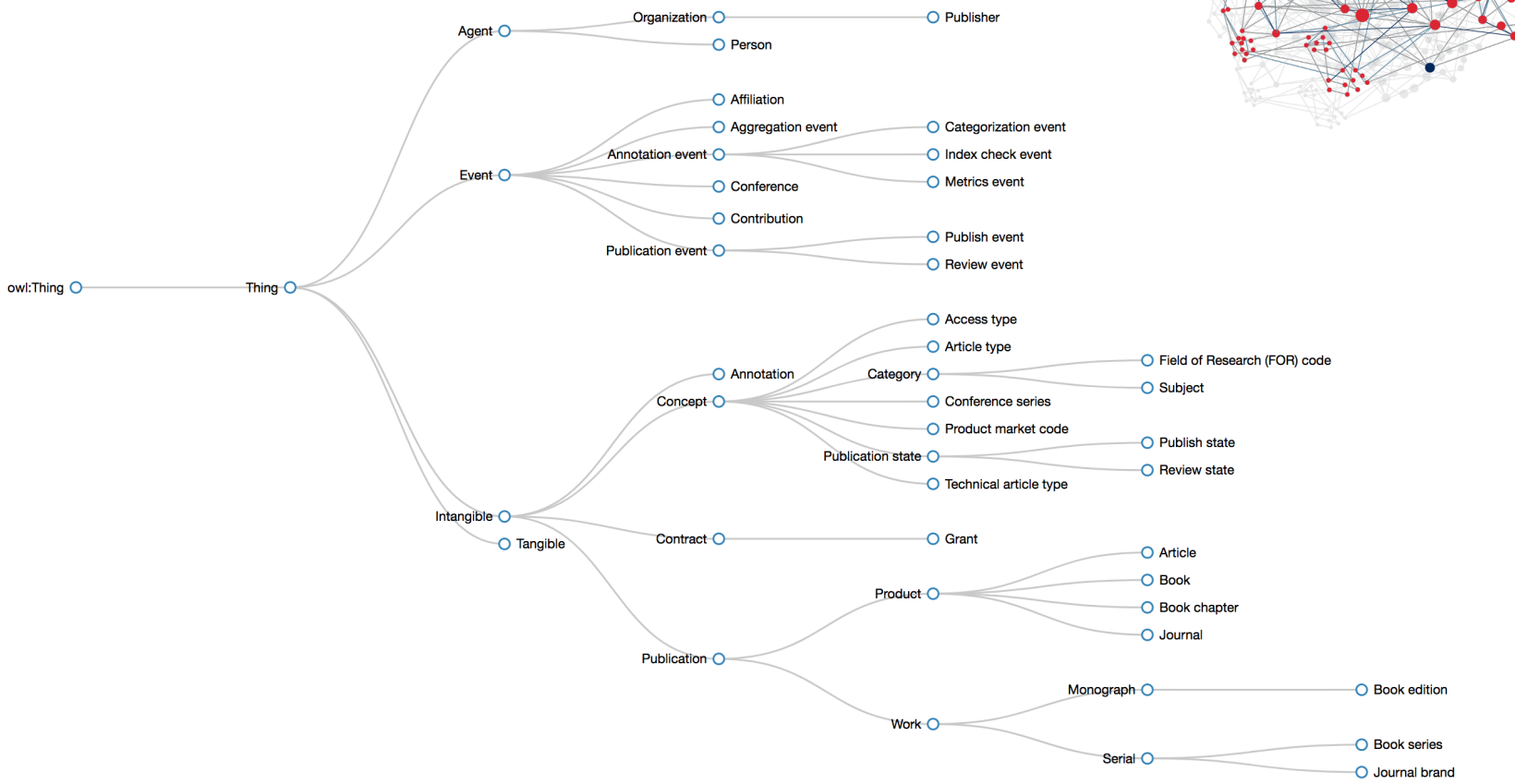
Approach at Springer Nature: native BIBFRAME provision



http://www.loc.gov/bibframe/docs/bibframe2-model.html

Springer Nature SciGraph: core ontology





- Model makes distinctions similar to BIBFRAME (i.e., distinction between product level & Work)
- Internally developed ontology that is being aligned with external vocabularies (e.g., BIBFRAME, schema.org)
- Access: https://github.com/springernature/scigraph/

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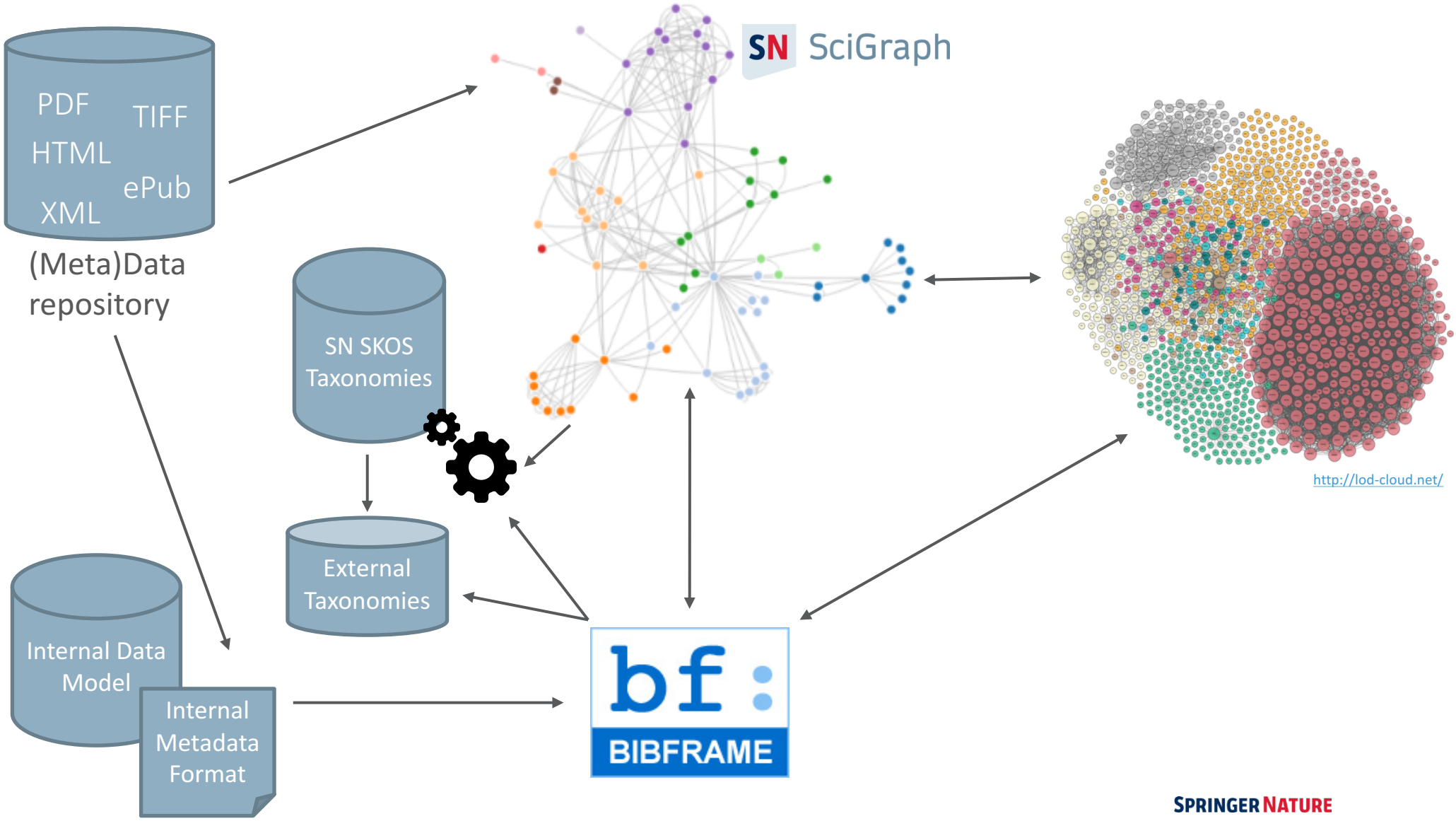
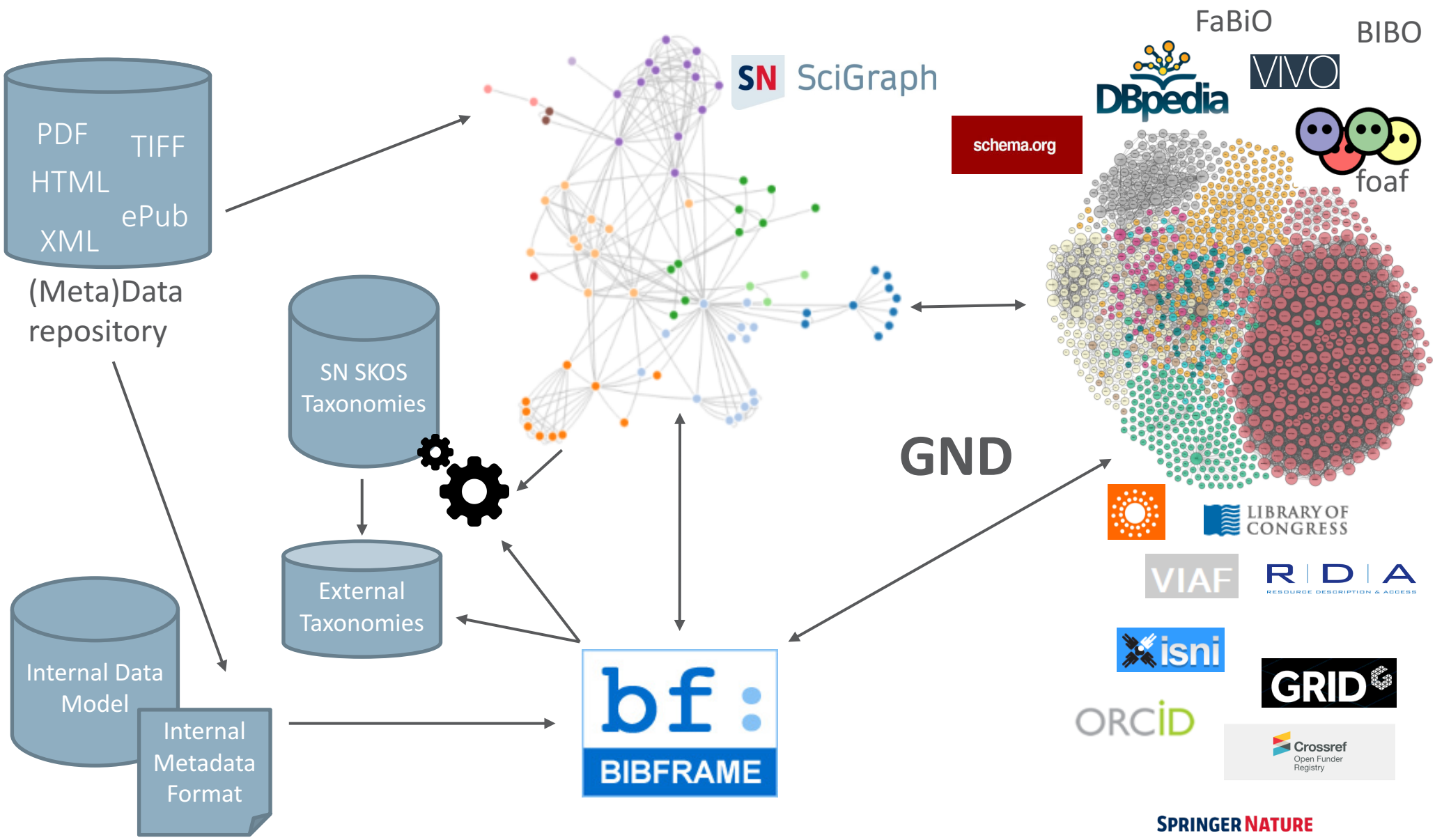
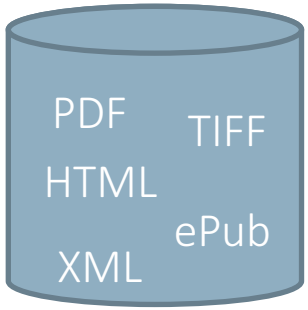
High-level BIBFRAME generation process



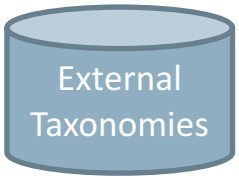
High-level BIBFRAME generation process

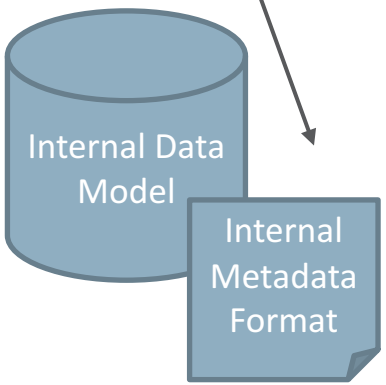


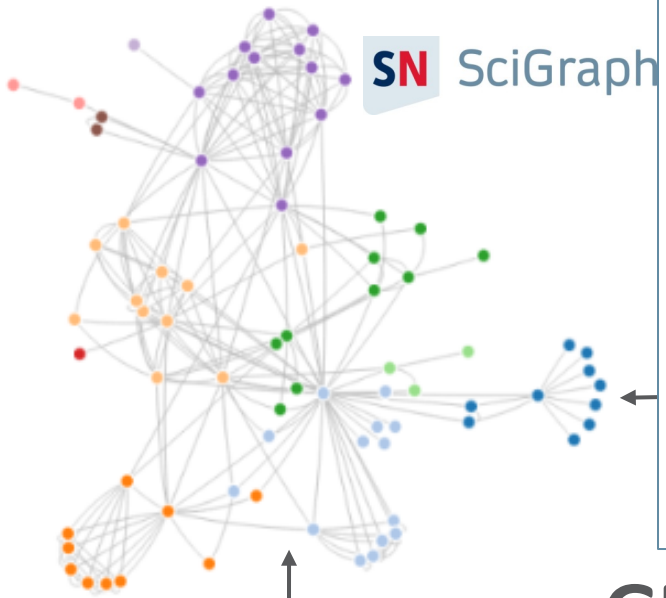
High-level BIBFRAME generation process



(Meta)Data repository







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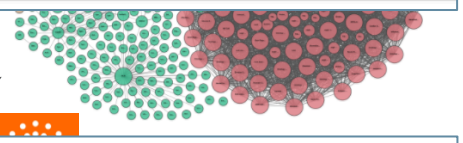
International Semantic Web Conference

URI: http://lod.springer.com/data/conference/semweb2014

Property	Value
Conference acronym	• ISWC (en)
Conference city	• Riva del Garda (en)
Conference country	• Italy (en)
Conference end date	• 2014-10-23 (xsd:date)
Conference name	• International Semantic Web Conference (en)
Conference number	• 13 (xsd:integer)
Conference start date	• 2014-10-19 (xsd:date)
Conference year	• 2014 (xsd:gYear)
Has GND ID	• <http://d-nb.info/gnd/1060239930>
Conference Series	• <http://lod.springer.com/data/confseries/semweb>
is Proceedings of of	• <http://lod.springer.com/data/book/978-3-319-11915-1> • <http://lod.springer.com/data/book/978-3-319-11964-9>
Type	• Conference

GND



GND

Link zu diesem Datensatz	http://d-nb.info/gnd/1060239930
Veranstaltung	ISWC (13. : 2014 : Riva del Garda)
Andere Namen	International Semantic Web Conference (13. : 2014 : Riva del Garda)
Zeit	2014
Land	Italien (XA-IT)
Geografischer Bezug	Veranstaltungsort: Riva del Garda
Typ	Veranstaltung (vie)

What's next?

- Finish BIBFRAME implementation

- Gradual data publication
  - Download BIBFRAME (Work, Instance) in different serializations
  - Query APIs, endpoints
  - Alignment with SN SciGraph

- Continuous enhancement
  - Increase URI coverage
  - Mapping to additional external vocabularies

- Collaboration with the library community
  - User testing and feedback
  - Data provision

Image source: http://hermentorcenter.com/wp-content/uploads/2012/02/Fotolia-Next-Steps_34318240_Subscription_XL.jpg

Conclusion: our view on BIBFRAME so far

- Continue our current approach:
  - Own Springer Nature core ontology
  - Linking to external vocabularies
  - Making BIBFRAME available

- BIBFRAME 2.0 is moving into the right direction

→ But: still a way to go to become a widely-adopted standard:
  - Linking from strings to things
  - Current implementations often too MARCish

→ What it needs:
  - Advocates and implementers
  - Collaboration within the LOD community
  - Involvement in the development of the vocabulary

Thank you!

Contact:

Christina Hoppermann

Senior Manager Metadata & Knowledge Models

christina.hoppermann@springernature.com

https://orcid.org/0000-0001-8858-7536

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Appendix

Approach at Springer Nature

- **Laying the foundations**
  - Semantically enriched metadata
  - Introduction of persistent identifiers (PIDs) for entities such as persons, funders, organizations, and events (i.e., conferences)
  - Use of knowledge models (ontologies, taxonomies), URIs
  - Making Linked Data key to our data infrastructure

- **BIBFRAME generation**
  - No direct conversion from MARC to BIBFRAME
  - Instead: native BIBFRAME provision
    - Based on internal data models and knowledge models
    - Re-use of PIDs, URIs, data from SN SciGraph