

# e-Infrastructures Austria

**Impulsreferat: Open Access und  
Open Research Data**

**3. OANA-Gesamtveranstaltung, Palais Harrach  
1. Juni 2016**



**e-infrastructures  
austria**

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# Das Projekt e-Infrastructures Austria

## Projektziele

- Aufbau von **Dokumentenservern** bei allen Partnereinrichtungen
- Erarbeitung eines **strategischen Konzepts für Forschungsdaten-management** in Österreich
- Aufbau eines **Wissensnetzwerks für den Umgang mit digitalen Ressourcen**

## Projektlaufzeit

- Jänner 2014 - Dezember 2016

# Warum Research Data Management?

Forschungsgelder aus  
Europa:

- H2020 Policy: [Open Research Data wird ab 2017 im gesamten H2020 Programm Default](#)
- [European Open Science Cloud](#)

Forschungsgelder aus  
Österreich:

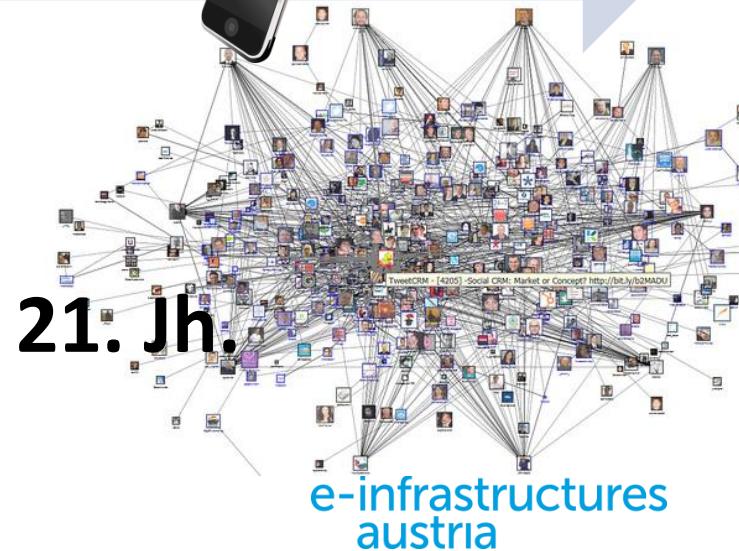
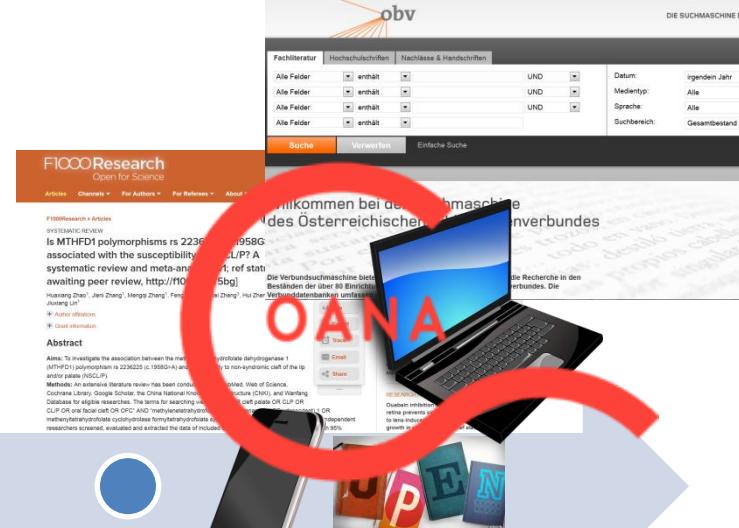
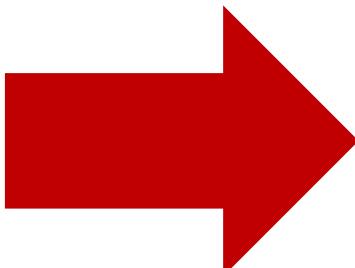
- FWF Policy: [Open Research Data by Default](#)
- FFG: Open Research Data Policy in Planung

# Wissenschaftskommunikation im Wandel

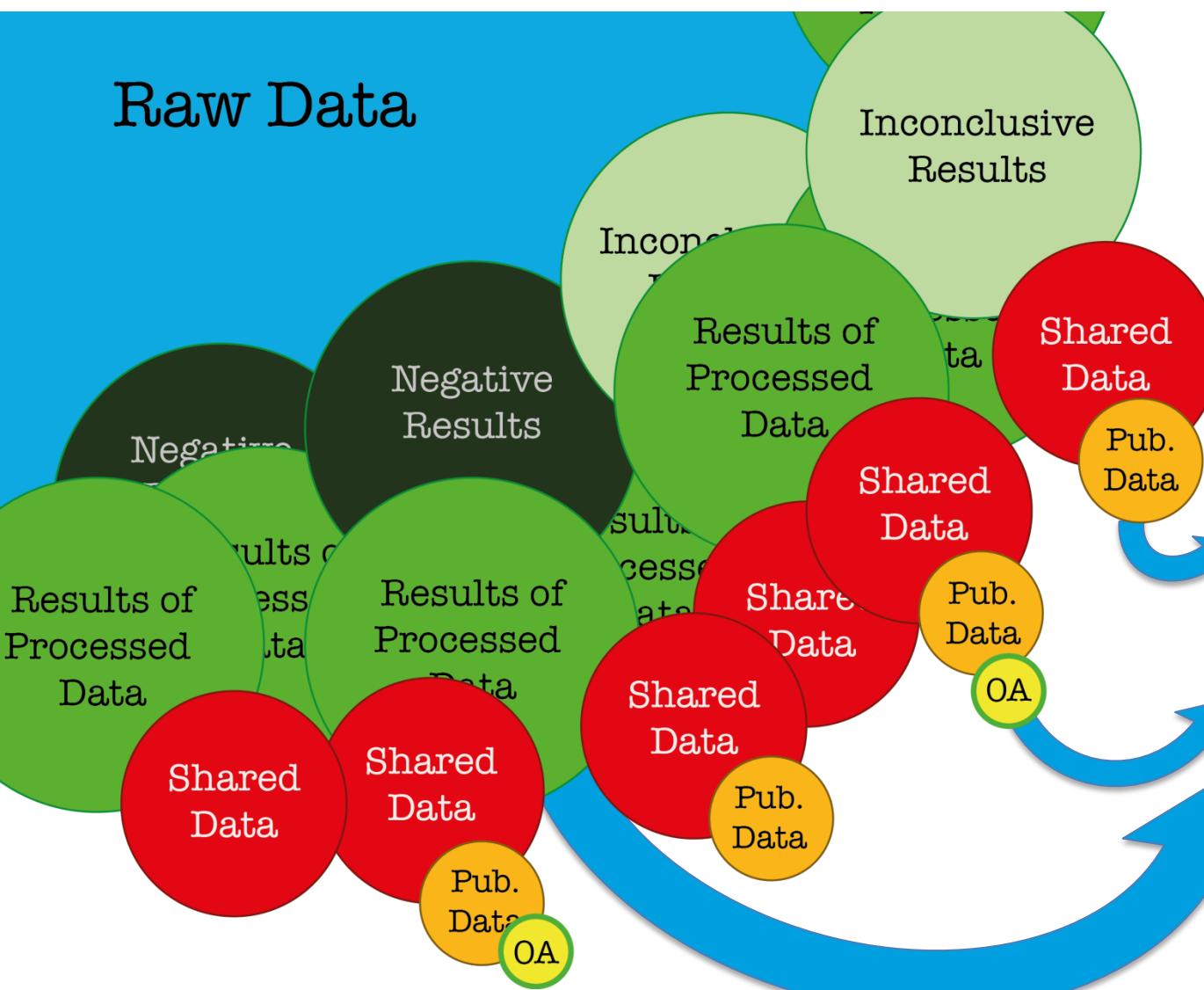
19./20.Jh.



Ende 20. Jh.: das Internet



# Forschungsdaten



REVIEW

Viscoelastic Properties of Hyaluronan in Physical Conditions [version 1; referees: 2 approved]

- [✉ Mary K. Cowman<sup>1</sup>, Tannin A. Schmidt<sup>2</sup>, Preeti Raghavan<sup>3</sup>, Antonio Stecco<sup>4</sup>](#)
- [✉ Author affiliations](#)
- [✉ Grant information](#)



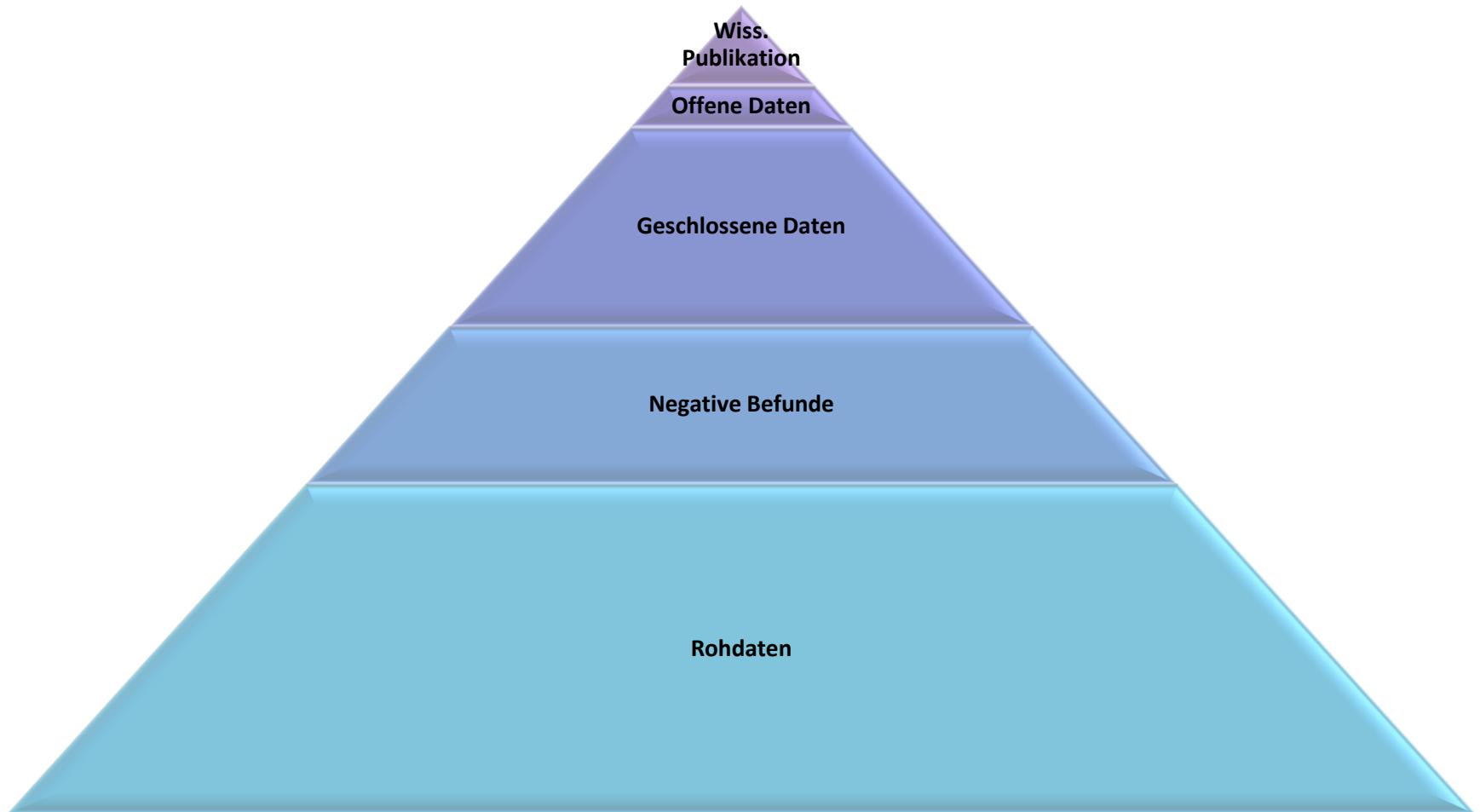
This article is included in the [Fascia research](#) channel.

Abstract

Hyaluronan (HA) is a high molecular weight glycosaminoglycan of the extracellular matrix which is particularly abundant in soft connective tissues. Solutions of HA can be shear-thinning or shear-thickening, exhibiting non-Newtonian flow properties. These properties affect the movement of HA-containing fluids within and underlying the deep fascia. Changes in the concentration, molecular weight and covalent modification of HA in inflammatory conditions, as well as changes in binding of HA with other macromolecules, can have dramatic effects on the sliding movement of connective tissue. Molecular weight and the semi-flexible chain of HA are key factors leading to the rheological behavior of HA solutions, and real HA solutions show additional nonideality and greatly increased viscosity compared to the theoretical predictions. The shear rate dependence of the viscoelastic properties of HA solutions, depend on the relaxation time of the molecule, which in turn depends on the molecular weight. Temperature can also have an effect on these properties. High viscosity of HA solutions can increase the concentration of HA, increasing the friction between the layers of connective tissue and muscle. Immobility can increase the concentration of HA, increasing the viscosity of HA-containing fluids and decreasing the gliding function. Inflammation can further increase the viscosity of HA-containing fluids if it leads to the attachment of heavy chains derived from Inter-α-Inhibitor. Hyaluronidase hydrolyzes HA, lowering the viscosity of the extracellular matrix fluid and making outflow easier. Aggregates or gel-like structures that result from HA being modified. Hyaluronidase is a dispersion agent, but may also be useful in conditions where altered viscosity of HA is a symptom of muscle stiffness.

[✉ Corresponding author:](#) Mary K. Cowman

# Forschungsoutput



# Neue OANA Arbeitsgruppe

Empfehlungen zur Erweiterung  
der OA-Strategie mit Open  
Research Data (und Software)

- Antwort auf die EU  
Forderungen und  
federführenden  
Entwicklungen in [GB](#) und  
[USA](#)

Fortführung der e-  
Infrastructures AT Task Force  
*Strategie für Umgang mit  
Forschungsdaten in Österreich*

- Synergetischer und  
koordinierter Ansatz:  
Österreich als Open Research  
Data Vorreiter positionieren

## e-Infrastructures Austria

# DANKE FÜR IHRE AUFMERKSAMKEIT!

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# Abbildungsverzeichnis

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