



**OPEN REPOSITORIES 2019**

Hamburg, June 10-13, 2019

# Practical application of CRIS/IR interoperability @ Uni Strathclyde

Pablo de Castro

Open Access Advocacy Librarian, U Strathclyde Library

euroCRIS Secretary

[pablo.de-castro@strath.ac.uk](mailto:pablo.de-castro@strath.ac.uk)

<http://orcid.org/0000-0001-6300-1033>

# Pure CRIS-centred interop landscape

## Focus on Research Assessment Exercise



# Main library-led application: Open Science implementation

[Strathprints home](#) > [Open Access](#)

[Login](#)

## The role of Current Research Information Systems (CRIS) in supporting Open Science implementation : the case of Strathclyde


de Castro, Pablo (2019) *The role of Current Research Information Systems (CRIS) in supporting Open Science implementation : the case of Strathclyde*. I<sup>T</sup>Lib, 2018. pp. 21-30. ISSN 1336-0779



Text (PDeCastro\_Role\_of\_Current\_Research\_Information\_Systems)

PDeCastro\_Role\_of\_Current\_Research\_Information\_Systems.pdf

Final Published Version

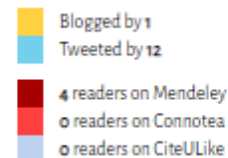
License: 

[Download \(1MB\)](#) | [Preview](#)

Official URL: <https://doi.org/10.25610/itlib-2018-0003>



[See more details](#)



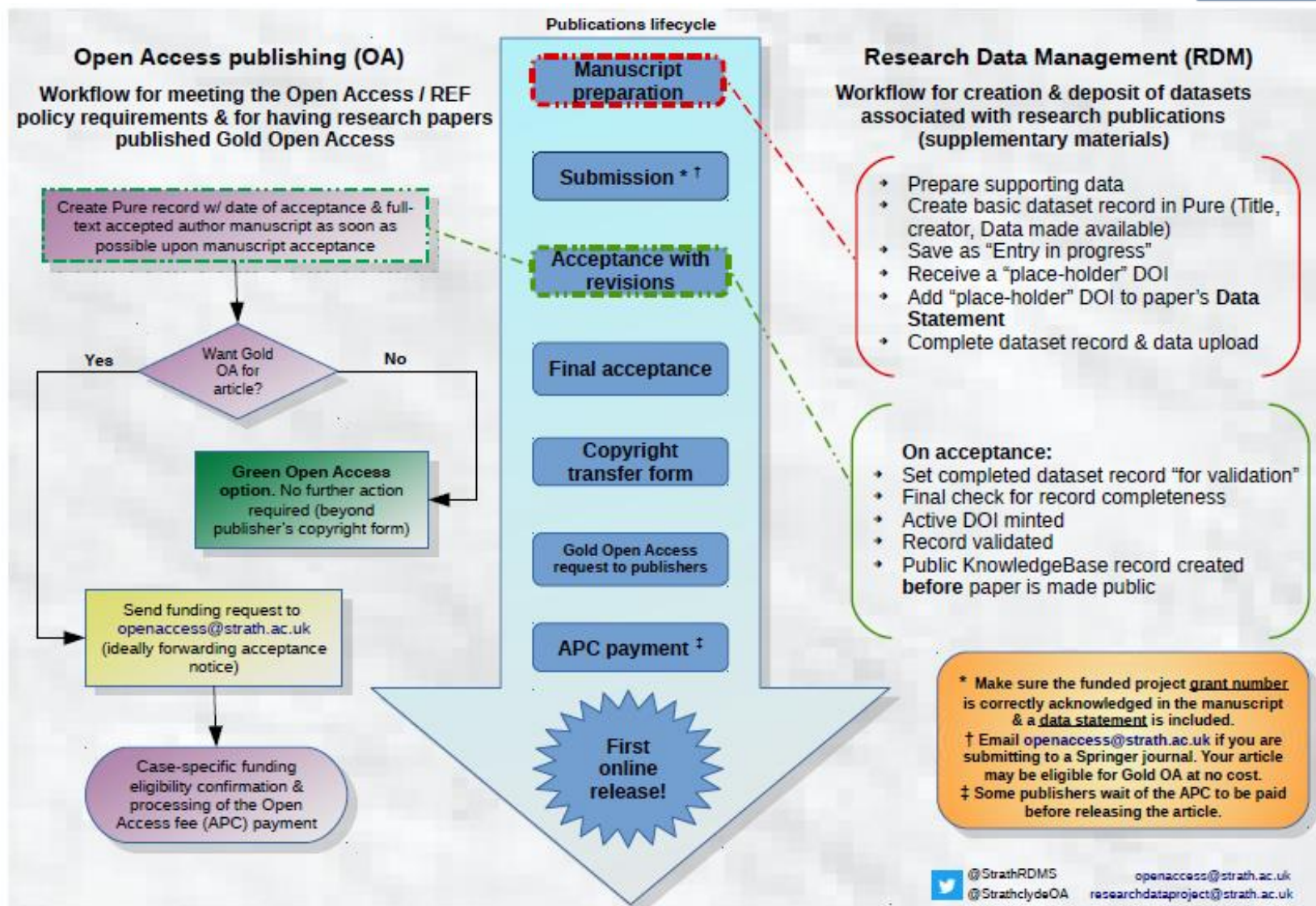
## Abstract

CRIS systems are playing an increasingly relevant role in the implementation of Open Access and Research Data Management (RDM) policies at research-performing organisations. This is not just because of the deep insight these systems provide into the workflows that underpin the institutional research activity, but also because they allow an effective teamworking across institutional research support units, which critically include research libraries. This article































# UK policy landscape (Open Access)

Research funder	OA flavour	Brief policy description
<i>Higher Education Funding Council for England (HEFCE)</i>	<i>Green</i>	<i>In operation since 01/04/2016 (implemented since 2014 at Strathclyde). Mandatory deposit of full-text accepted author manuscript no longer than three months since manuscript acceptance. <b>Linked to the UK Research Excellence Framework (REF2021)</b></i>
Research Councils UK (UK Research and Innovation since 01/04/2018)	Green & Gold	Mandatory OA availability of funded outputs either via the Green or the Gold OA routes. Block grants delivered to research-intensive HEIs to fund Open Access fees for eligible publications (those that acknowledge RCUK-funded projects)
Charity Open Access Fund (COAF): coalition of UK charities led by the Wellcome Trust	Green & Gold	Mandatory OA availability of funded outputs either via the Green or the Gold OA routes. Block grants delivered to research-intensive HEIs to fund Open Access fees for eligible publications (those that acknowledge RCUK-funded projects). Green OA publications need to be deposited in EuropePMC
European Commission – FP7 programme	Green & Gold	Mandatory deposit of full-text accepted author manuscript for projects under Clause 39. Gold Open Access funding available for finished FP7 projects under the OpenAIRE FP7 Post-Grant OA Pilot
European Commission – H2020 programme	Green & Gold	Mandatory deposit of full-text accepted author manuscript for all H2020 projects (plus associated datasets). Gold Open Access funding may be claimed from project grant

# Integrated OA/RDM implementation



# Good OA figures a result of good policy

	University		P	P(OA)	PP(OA)				
1	Bilkent Univ		1909	1834	96.1%				
2	Hong Kong Polytech Univ		9911	8459	85.3%				
3	London Sch Hyg & Trop Med		7254	6172	85.1%				
4	Durham Univ		7177	5966	83.1%				
5	Univ Jaume I		2197	1822	82.9%				
6	City Univ London		2569	2099	81.7%				
7	Univ St Andrews		5535	4518	81.6%				
8	Univ Strathclyde		4848	3931	81.1%				
9	Univ Glasgow		11807	9391	79.5%				
10	Univ Leeds		11672	9203	78.8%				
11	Caltech		13529	10638	78.6%				
12	Univ Edinburgh		17828	13786	77.3%				
13	Loughborough Univ		4245	3279	77.2%				
14	Univ Bristol		14235	10832	76.1%				
15	Univ Bath		5139	3866	75.2%				

# Interlinked entities (CERIF data model)

Research output > Contribution to journal > Article - Pure 5.13.1-1 - Google Chrome

https://pure.strath.ac.uk/admin/editor/dk/atira/pure/api/shared/model/researchoutput/editor/contributiontojournaleditor.xhtml?id=87197274

Id: 87197274

## Determining GaN nanowire polarity and its influence on light emission in the scan

Research output: Contribution to journal > Article

Change template

EDIT

- Metadata**
- Metrics

OVERVIEW

- Relations
- Fingerprints
- Display

HISTORY AND COMMENTS

- History and comments

NOTIFICATIONS

Editors responsible for handling this submission: pablo.de-castro@strath..., andrew.daley@strath.ac.uk, l.gilkison@strath.ac.uk, judith.smart@strath.ac.uk, helen.cooper@strath.ac.uk, and 10 others

### Relations

Research Outputs

Activities

Prizes

Projects

- Manufacturing of nano-engineered III-nitride semiconductors** Edit -  
Project: Research
- Quantitative non-destructive nanoscale characterisation of advanced materials** Edit -  
Project: Research

Impact

Datasets

- Data for: "Determining GaN nanowire polarity and its influence on light emission in the scanning electron microscope"** -  
Dataset

Facilities/Equipment

- ESEM Quanta 250** -  
Facility/Equipment: Equipment

# A funded project-driven approach

## Soft And Small: Acoustic Transducers Inspired By Nature - SASATIN (EU European Research Council (ERC) Consolidator Grant)

Windmill, James (Principal Investigator)

Electronic And Electrical Engineering

Project: Research

STATUS Finished  
EFFECTIVE START/END DATE 1/02/14 → 31/01/19

### Funding

European Commission - FP7 - European Research Council: £1,722,288.00

#### ○ Equipment

ARCHIE-WeSt (UOSHPC)

#### ≡ Datasets

Ormia-inspired piezoelectric MEMS microphone operating at low frequencies

The Anti-bat Strategy of Ultrasound Absorption

Hearing on the fly: the effects of wing position on noctuid moth hearing

Data for: "Material stiffness variation in mosquito antennae"  
3D-printed housing influence on directional acoustic response of MEMS microphone

### Related content

#### 📖 Research Output

Development of a biologically inspired MEMS microphone

Housing influence on multi-band directional MEMS microphones inspired by Ormia ochracea

Towards the development of a frequency agile MEMS acoustic sensor system

Enhancing the sound absorption of small-scale 3D printed acoustic metamaterials based on Helmholtz resonators

Hearing on the fly: the effects of wing position on noctuid moth hearing

The anti-bat strategy of ultrasound absorption: the wings of nocturnal



# Interoperability shortcomings...



Soft and Small: Acoustic Transducers Inspired by Nature

Fact Sheet

Reporting

Results

## Deliverables

Deliverables not available

## Publications

Publications via OpenAire 

### Bioinspired 3D-printed piezoelectric device for acoustic frequency separation

Author(s): Domingo-Roca, R., Jackson, J. C., Windmill, J. F. C.

Permanent ID: doi:10.5281/zenodo.1064662, doi:10.5281/zenodo.1064661

### 3D-printing polymer-based permanent magnets

Author(s):

Permanent ID: Open Archives  
Initiative: oai:zenodo.org:1241041, doi:10.1016/j.matdes.2018.05.005

### Bio-inspired 3D-printed piezoelectric device for acoustic frequency selection

Author(s): Domingo-Roca, Roger, Tiller, Benjamin, Jackson, Joseph, Windmill, James

Permanent ID: doi:10.1016/j.sna.2017.12.056

### Measured beam patterns of biomimetic receivers improve localisation performance of an ultrasonic sonar

Author(s): Guarato, Francesco, Strang-Moran, Charlotte, Windmill, James F C

Permanent ID: doi:10.1109/ULTSYM.2017.8091933

### A low frequency dual-band operational microphone mimicking the hearing property of *Ormia ochracea*

Author(s): Zhang, Yansheng, Bauer, Ralf, Jackson, Joseph, Whitmer, William, Windmill, James, Uttamchandani, Deepak

Published in: Institute of Electrical and Electronics Engineers 1941-0158 2018

Permanent ID: doi:10.1109/JMEMS.2018.2845680

## Project information

### SASATIN

Grant agreement ID: 615030

Status  
Closed project

Start date  
1 February 2014


End date  
31 January 2019

Funded under:  
FP7-IDEAS-ERC

Overall budget:  
€ 1 997 854,80

EU contribution  
€ 1 997 854,80



Hosted by:  
UNIVERSITY OF STRATHCLYDE  


# ... and attempts at getting them fixed

**Aim : Provide mapping of Pure data model to OpenAire CERIF-XML guidelines and for CRIS Managers**

Elsevier have committed to implementing these guidelines in PURE for the October 2018 (v 5.13). To meet this deadline, Elsevier have asked for input from euroCRIS and Pure Customers to help develop the specification mapping the data held in Pure to the new OpenAire CERIF-XML guidelines. A short life working group (SLWG) will be setup to deliver this specification.

**rioxx**

## Application Profile Version 2.0 Final Version

Element	Value	XML
ali:free_to_read ali:license_ref	<a href="http://creativecommons.org/licenses/by/4.0">http://creativecommons.org/licenses/by/4.0</a>	<a href="http://creativecommons.org/licenses/by/4.0">http://creativecommons.org/licenses/by/4.0</a>
dc:description	The antennae of mosquitoes are model systems for acoustic sensation, in that they obey general principles for sound detection, using both active feedback mechanisms and passive structural adaptations. However, the biomechanical aspect of the antennal structure is much less understood than the mechano-electrical transduction. Using confocal laser scanning microscopy, we measured the fluorescent properties of the antennae of two species of mosquito – <i>Toxorhynchites brevipalpis</i> and <i>Anopheles arabiensis</i> – and, noting that fluorescence is correlated with material stiffness, we found that the structure of the antenna is not a simple beam of homogeneous material, but is in fact a rather more complex structure with spatially distributed discrete changes in material properties. These present as bands or rings of different material in each subunit of the antenna, which repeat along its length. While these structures may simply be required for structural robustness of the antennae, we found that in FEM simulation, these banded structures can strongly affect the resonant frequencies of cantilever-beam systems, and therefore taken together our results suggest that modulating the material properties along the length of the antenna could constitute an additional mechanism for resonant tuning in these species.	The antennae of mosquitoes are model systems for acoustic sensation, in that they obey general principles for detection, using both active feedback mechanisms and passive structural adaptations. However, the aspect of the antennal structure is much less understood than the mechano-electrical transduction. laser scanning microscopy, we measured the fluorescent properties of the antennae of two species c <i>Toxorhynchites brevipalpis</i> and <i>Anopheles arabiensis</i> – and, noting that fluorescence is correlated stiffness, we found that the structure of the antenna is not a simple beam of homogeneous material rather more complex structure with spatially distributed discrete changes in material properties. bands or rings of different material in each subunit of the antenna, which repeat along its length structures may simply be required for structural robustness of the antennae, we found that in FEM banded structures can strongly affect the resonant frequencies of cantilever-beam systems, and the together our results suggest that modulating the material properties along the length of the anter an additional mechanism for resonant tuning in these species.
dc:format	application/pdf	application/pdf
dc:identifier	<a href="https://strathprints.strath.ac.uk/67711/8/Saltin_et_al_JRSI_2019_Material_stiffness_variation_in_mosquito_antennae.pdf">https://strathprints.strath.ac.uk/67711/8/Saltin_et_al_JRSI_2019_Material_stiffness_variation_in_mosquito_antennae.pdf</a>	<a href="https://strathprints.strath.ac.uk/67711/8/Saltin_et_al_JRSI_2019_Material_stiffness_variation_in_mosquito_antennae.pdf">https://strathprints.strath.ac.uk/67711/8/Saltin_et_al_JRSI_2019_Material_stiffness_variation_in_mosquito_antennae.pdf</a>
dc:language	en	en
dc:source	1742-5689	1742-5689
dc:subject	TA164	TA164
dc:subject	TK	TK
dc:title	Material stiffness variation in mosquito antennae	Material stiffness variation in mosquito antennae
rioxterms:author	Saltin, B. D.	Saltin, B. D.
rioxterms:author	Matsumura, Y.	Matsumura, Y.
rioxterms:author	Reid, A.	Reid, A.
rioxterms:author	Windmill, J. F.	Windmill, J. F.
rioxterms:author	Gorb, S. N.	Gorb, S. N.
rioxterms:author	Jackson, J. C.	Jackson, J. C.
rioxterms:project	615030 SASATIN	615030 SASATIN
rioxterms:project	EPSRC EP/H02848X/1	EPSRC EP/H02848X/1
rioxterms:publication_date	2019-05-31	2019-05-31



# OPEN REPOSITORIES 2019

Hamburg, June 10-13, 2019

## Questions?

Pablo de Castro

Open Access Advocacy Librarian, U Strathclyde Library

euroCRIS Secretary

[pablo.de-castro@strath.ac.uk](mailto:pablo.de-castro@strath.ac.uk)

<http://orcid.org/0000-0001-6300-1033>