



ORCID FOR **FUNDING ORGANIZATIONS**



GRANT AWARDS



ORCID

ORCID AND GRANT DOIs

Engaging the Community to Ensure Openness  
and Transparency of Funding Information

JULY 2019

A RECOMMENDATION AUTHORED BY: THE ORBIT FUNDER WORKING GROUP

## DOCUMENT BACKGROUND AND PURPOSE

This document is intended to encapsulate how identifiers for grantees and grants can enable better grantee tracking and funding reporting. It describes specific information flows from and into funder systems, explaining how funders can affect those flows by using ORCID or Crossref services in various combinations. It also proposes complementary actions to enable open research goals for other actors in the information flow, including ORCID, Crossref, researchers, and publishers.

This document summarizes and extends discussions by the [ORBIT Technical Advisory Group \(TAG\)](#) and [Funder Working Group \(FWG\)](#). Group members used this document to comment on the draft, and have endorsed the recommendations for publication as part of the ORBIT project and for sharing with stakeholders.

### SCENARIOS FOR INFORMATION SHARING AND RE-USE

ORBIT TAG and FWG members would like to ensure that the interactions between funders, ORCID, and [Crossref's new grant DOI service](#) are efficient and effective for all concerned, that they help to reduce the application and reporting burden for researchers, and improve funding reporting for the research community.

We start with the following tenets:

- Unique identifiers for grants and people are of general benefit, and will enable simpler, more accurate management of information during grant application, administration, and reporting
- Including ORCID iDs and grant DOIs in grant metadata, and grant DOIs in funding items in ORCID records, optimizes information transparency and openness
- The trustworthiness and reliability of person-grant connections is very important for the integrity of grant application and reporting workflows

Ideally, funders using ORCID iDs and grant DOIs (persistent identifier — PID — infrastructure) should be adding information about their awards to ORCID records after a grant has been awarded. Members of the ORBIT TAG and FWG are in agreement that the simplest workflow would be for the transfer of grant information to ORCID to be performed via Crossref as part of the grant DOI registration process. This workflow requires specific actions from each party: funders — ORCID, and Crossref — and additional actions by publishers to enable reporting workflows.

We acknowledge that each party will engage with PID infrastructure to varying degrees. For maximum benefit to the researcher and the funder, grant DOIs and ORCID iDs should be used, made publicly available, and auto-shared with the researcher in a re-usable format, and platforms should be enabled to accept this information without rekeying. The demand for transparency to enable tracking of grantees and reporting of funding outcomes suggests the following preferred information flow scenarios, in order of increasing fidelity and decreasing researcher burden:

### SCENARIO 1 (LOW FIDELITY, HIGH EFFORT)

#### The funder does not use persistent identifiers for grants or grant applicants.

**If:** Funder does not register grant DOIs and does not collect ORCID iDs

**Then:** Researcher must enter information manually in every system, with implications for quality and sharing of the information

In this scenario, individuals would be responsible for manually reporting their grant information, including manually adding it to their ORCID record. Researchers would not be assisted by funders in managing metadata quality, with implications for sharing and tracking across research information systems.

**Advantage:** No change from current process

**Disadvantage:** High burden likely means low involvement by researchers. Low data quality means difficulty tracking impact

### SCENARIO 2 (MEDIUM FIDELITY, HIGH EFFORT)

#### The funder registers Crossref DOIs for grants without ORCID iDs in the metadata.

**If:** Funder registers grant DOIs with Crossref but does not collect ORCID iDs

**Then:** Researcher needs to take action to make a connection with their grant, but fidelity is improved because they can import the information for re-use in another platform

In this scenario, individuals would be responsible for manually reporting their grant information, including adding it to their ORCID record so they can share it with other systems with which they interact. Addition to ORCID can be done manually or via a “funding wizard” available in the ORCID Registry (e.g., UberWizard or a potential Crossref Search and Link tool). Not only would researchers need to understand and be motivated by the benefits of taking this action, funders would need to ensure their grants data are available for claiming by researchers.

**Advantage:** Transparent and global grant DOIs distinguish grants from each other

**Disadvantage:** High burden likely means low involvement by researchers

### SCENARIO 3 (MEDIUM FIDELITY, HIGH EFFORT)

**The funder collects ORCID iDs as researchers are applying for a grant, and adds grant award information directly to ORCID records using a local grant ID.**

**If:** Funder does not register grant DOIs and does collect ORCID iDs (member API)

**Then:** Researcher-grant connection is made by the funder, and can be automatically shared with the researcher and easily shared in other platforms, but each funder needs to build an ORCID updater

The funder uses ORCID's member API to collect authenticated ORCID iDs and obtain record update permissions from grantees during the grant application process. When the grant is awarded, the funder uses ORCID's member API to post grant award information directly to ORCID records using whatever local grant identification system they have. In this scenario, researchers need only use their ORCID ID when applying and do not need to take time later to use some other tool to update their ORCID record.

**Advantage:** The funder is assured that all awarded grant information is posted to ORCID and available to share as the researcher interacts with other research systems — including grant reporting and manuscript submission systems

**Disadvantage:** Each funder needs to build their own API workflow to update ORCID records; local grant identifiers may not be persistent or sharable

### SCENARIO 4 (HIGHEST FIDELITY, LOW EFFORT)

**The funder collects iDs and update permissions using the ORCID member API during grant application, then registers DOIs for grants and passes the authenticated iD and update permission to Crossref.**

**If:** Funder registers grant DOIs with Crossref and does collect ORCID iDs (member API)

**Then:** Researcher-grant connection is made by the funder, and can be automatically shared with the researcher and easily shared in other platforms and the funder can use an external system to manage the updates

At grant award, Crossref updates the ORCID records with the grant DOI and associated metadata in a single workflow.<sup>1</sup>

**Advantage:** In this scenario, as with #3, researchers need only use their ORCID iD when applying for a grant and do not need to take time later to use some other tool to update their ORCID record. In addition, leveraging a Crossref—>ORCID update workflow means less ORCID integration work and maintenance for funders

**Disadvantage:** Dependency on an external system to update ORCID records

<sup>1</sup> An alternative workflow is possible (and is likely to be most common as a 'default'), in which the funder passes information to Crossref to register DOIs for grants, then pushes grant information to the ORCID registry from the funder's grant management system.

## DRAFT RECOMMENDATIONS

*The ORBIT Funder Working Group (FWG) recommends that:*

### **Researchers should:**

- Use your ORCID iD when applying for grants
- Share your ORCID iD and grant information via your ORCID record when submitting your article to a publisher or repository

### **Funders should:**

- Ensure that your grant application systems collect ORCID iDs, and communicate the authentication status and any permissions granted to enable subsequent updates of ORCID records with funding data - either directly or via a third party
- Provide grant award metadata publicly, ideally including a DOI for the grant and ORCID iDs for the people associated with the grant
- Use ORCID iDs and grant DOIs to get updates on your awardee contributions as they are made public

### **Crossref and third party grant indexers should:**

- Look for an authentication flag and any associated update permissions when an ORCID iD is detected during the submission of grant metadata
- Include iDs in the published grant metadata if an iD AND proof of authentication is detected
- Use update permissions when detected to “Auto-update” ORCID records, and include the iD in public metadata
- Consider building a ‘search and link wizard’ tool to improve the reusability of grant funding metadata in downstream workflows

### **Publishers should:**

- Collect authenticated ORCID iDs from authors and co-authors
- Enable all authors to share grant and other information from their ORCID record into manuscript submission and/or production systems
- Pass the authenticated ORCID iDs and grant DOIs on to Crossref when registering the article DOI

### **ORCID should:**

- Enable the workflows described above by providing a secure and reliable method of sharing authentication status (for all API users) and update permissions (for member API users) across the spectrum of funders: small, large, low- and high-technology capable
- Expose source information that details provenance for funding (and other) information in ORCID records
- Create mappings from the Crossref funding schema to the relevant sections of the ORCID record (awards, prizes, facilities use, etc.)
- Work with publishers, repositories, universities, and other ‘downstream’ users of ORCID record information to develop beneficial workflows and integrations that re-use funding information
- Create a program to certify platform providers as “ORCID ready”



For more information on ORBIT, please visit <https://orcid.org/organizations/funders/orbit>

For comments or questions about these recommendations,  
please contact ORCID at [community@orcid.org](mailto:community@orcid.org).