

STM Standards and Technology Committee

Vision, Mission, Priorities and Objectives

Vision and Mission

'Standards and Technology for the Advancement of Research'

The Standards and Technology Committee supports STM's members in their mission to advance research worldwide. We serve science and society by developing standards and technology in order to

1. make **access** to and use of research outputs easier,
2. make doing **Open Science** easier, and the **entire process** of scholarly communication,
3. We focus on **quality, trust and integrity** in the research process and
4. on providing simple and **intuitive user experience**.

*We work together on initiatives where there is an evident customer need, a collective will, and where only a collaborative, non-competitive solution will succeed. That spirit of collaboration extends to other stakeholders in research, with whom we will work in partnership. To support this work, STEC **builds awareness and understanding among member companies** to engage collective support for industry-wide initiatives.*

Objectives for 2019

To make access easier:

1. **RA21**: Arrange funding and operational infrastructure for RA21, agree governance structure with NISO/ Geant/ Internet2/ ORCID/ other stakeholders, initiate implementation and outreach. Proposal to the STM Board in April, further worked out in July.
2. **DUL**: Encourage adoption of Distributed Usage Logging through outreach activities: outreach plan in April or July .
3. **COUNTER R5**: Support uptake of Counter Release 5 across the industry through a programme of joint Counter/STM webinars, from March 2019 onwards. Regular Board reports.

To make Open Science easier and improve the process of scholarly communication:

4. **Fair=Fair**: As an EU Research Data Champion, initiate demonstration projects in support of the Fair = Fair project, launching in March 2019. Report on action plan in July
5. **Shared infrastructure for transparent/portable peer review**: Gauge member interest via webinars in Q1, if sufficiently positive join project steering group in Q2, more webinars in H2, mobilize member participation in Q4 piloting.
6. **Methods Hub**: join exploratory committee formed by David Crotty to establish standards, discovery services and a repository eco-system for sharing methods and protocols.
7. **SCHOLIX**: Increase support for outreach and implementation for SCHOLIX to ensure publishers are key partners in data sharing Develop marketing and communication plan by April, including a budget request

Focus on Trust and Integrity:

8. **Trust and Integrity**: Proposal for development of a Trust and Integrity Agenda for STM for initial discussion by the Board in October, explore partnering with Open Science portfolio, COS, EU and others
9. **Badges for Reproducibility**: join the NISO working group established via IEEE.

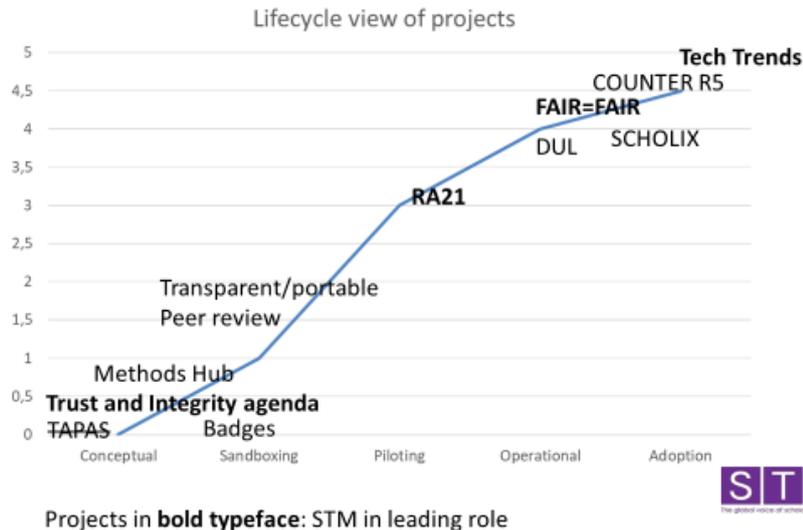
Awareness and Outreach:

10. **Tech Trends:** Continue work on the annual Tech Trends brainstorm, report, presentations and outreach. Launch new Tech Trends in April, presentations April – October, start new brainstorm in December.
11. **Future Lab:** Raise general awareness and keep members abreast of the main developments and new opportunities in the area of standards and technology via regular webinars and by organising Innovations seminars during the STM conferences. Throughout the year.

Governance, process, resourcing:

12. **Explore new initiatives:** Present to the STM Board a proposal for the development of a standing capability to evaluate potential projects up to the development of a technology/business plan: Budget for 50K EUR market analysis per new initiative, on average two initiatives per year.
13. **For projects entering an operations phase,** STM's Board should consider what would be required to create this operational framework in terms of investment, governance and management.
14. **Projects evaluation:** Pilot the evaluation of new and upcoming projects in STEC.

Lifecycle view of projects pipeline (project stages and commitment)



Governance, Resources and Process: Current and Future

1. STEC initiatives can be categorised in terms of Standards, Policies, Operational Infrastructure, Outreach and Awareness Building. Some of these are more demanding of resource than others:
 - a. The current focus of STM for the S&T area is on awareness building, outreach, policies and incidentally the coordination of projects in their conceptual phase for which STM and its members take the lead.

- b. STM currently has capability to convene and mobilize members around standards and technology initiatives but lacks standing capacity to run them. At the least, STM needs a resource to carry through the evaluation and exploratory phases of a potential project up to the development of a business/project plan. The estimated cost of such a capability is around 50k EUR per project to recruit a freelance product manager or market analyst. It is estimated that on average two such initiatives per year would present themselves for deeper exploration and evaluation, requiring in total 100k EUR p.a.
 - c. Where projects are realised, ready to be built and operated, STM lacks the capacity and capability to STM's Board should consider what would be required to create this operational framework in terms of investment, governance and management.
2. For the process management of initiatives in S&T, STEC applies a Project Evaluation Framework, to also consider the feasibility of projects, and STM's role either leading or supporting an initiative. Projects have been plotted against a life-cycle view [see slide on previous page]. A format for project proposal and evaluation and a stage-gating process are under development.

Project Resourcing

As evaluated through the STM/STEC framework, the following projects are prioritized.

In those highlighted in pink, STM takes a leading role. Obviously, a leading role requires more resources than a partnering role. The same goes for operational projects versus outreach activities. Exploring new initiatives is a category on its own and requires dedicated capacity (see objective 12).

	Operational project	Awareness & Outreach	Exploratory initiative
Access	RA21	DUL COUNTER R5	
Open Science	Fair = Fair (data)	SCHOLIX	Methods Hub
Trust and Integrity			Trust & Integrity Agenda Badges for Reproducibility
Scholarly Communication		Tech Trends Future Lab	Shared Infrastructure for Transparent Peer Review

Key (short description of each project):

1. **Tech Trends:** annual forecast of technology trends impacting the STM industry; brainstorm, report, presentations and webinars (role of STM: leading)
2. **Future Lab:** discussion forum of 35 STM member organisations on new initiatives, trends and developments related to standards and technology in STM (role STM: leading)
3. **DUL/ Distributed Usage Logging:** Make scholarly communications easier and enable OS by counting all publisher downloads, including sharing platforms. (role of STM: outreach)

4. **RA21:** Make access to subscribed content easier via a single sign on protocol to replace outdated IP authentication. (role of STM: project lead with NISO)
5. **FAIR = FAIR:** Make Open Science easier and enhance trust and integrity by enabling the sharing of research data, data linking, data citation and data submission. (Role STM: lead in coordination of demonstration projects to partnering stakeholders)
6. Develop a **Trust and Integrity Agenda** for STEC/STM: Broaden publishers' role in ensuring trust by proposing standards and policies around, for example, data peer review, reproducibility badges, statistical checking, materials description. (role of STM: project lead)
7. **Counter Release 5:** Make scholarly communication easier by supporting the launch of this release which will allow deeper analysis of usage. (role STM: awareness and outreach)
8. **SCHOLIX:** Make Open Science easier by providing a framework for linking between research data and publications. (role STM: coordination of outreach and awareness)
9. **Shared Infrastructure for Transparent and Transportable Peer Review:** Make Open Science and Scholarly Communication easier, raise Trust in Peer Review quality and integrity, by sharing Peer Review metadata across publishers and make peer review re-usable in the cascading journal system through a shared infrastructure. (role of STM: coordinating awareness and member participation)
10. **Methods Hub:** make Open Science easier by sharing methods, protocols in an open platform across publishers, focus on Trust and Integrity.
11. **Badges for Reproducibility:** make Open Science easier; NISO project group to explore badges as indicators for reproducibility of research

Draft for project Evaluation:

Example Evaluation Criteria - DRAFT

		Supporting					Providing				
		Enabling Access	Open Science	Scholarly Comm	Integrity and Trust	Creating Standards	Defining Policies	Infra-structure	Outreach / Awareness		
		x		x		x		x	x		
	RA21	x		x		x		x	x		
	DUI (Count all your Downloads)			x		x			x		
	Transparent / portable Peer Review		x	x	x	x	x		x		
	Research Data (FAIR is FAIR)	x	x	x	x	x	x		x		
	SCHOLIX	x	x	x	x			x	x		
	Reproducibility Badges		x	x	x	x	x		x		
	Methods Hub	x	x	x	x	?					
	Counter Release 5			x			x		x		

Evaluation Criteria (all values between 1 and 5)												
Size of customer / market needs	Urgency (or expected urgency)	Breadth of benefit within STM	No competitive edge and no anti-trust issues	There are no existing solutions	There is a well-defined realistic goal	Cannot be done by individual members	Stakeholder collaboration involved	Has support from the big 5 members	Has support from other members	Contributes to (STM) Open Science	TOTAL Evaluation Criteria	
5	5	5	5	4	4	5	5	5	5	2	52	
5	5	5	5	4	4	5	5	4	5	2	41	
4	4	4	4	4	4	5	4	4	4	5	40	
5	4	5	5	5	5	5	5	5	5	5	50	
4	4	5	5	5	4	5	5	5	5	5	51	
5	5	4	5	2	5	5	5	5	5	5	37	
2	2	2	2	2	2	2	5	2	2	5	24	
4	4	5	5	5	5	5	5	5	5	2	50	