



## Panel on Open Science at #CSPC2024

### Canadian Science Policy Center 2024 conference

November 20th-22nd, 2024, at the Westin Ottawa hotel

**Participants:** [Breathing Games](#), [Sensorica](#), Sze Man (Sainte Justine Montreal Hospital),  
*perhaps someone from Axelys.*

Possible others, [see OSPA forum post](#)

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# Background

[Breathing Games](#), [Sensorica](#) and partners have engaged with the CSPC in the past.

- [Working doc for 2020](#)
- [Working doc for 2017](#)

See also [Sensorica's open science page](#).

## Preparations

[Panel proposal criteria](#).

[Panel Themes](#)

We chose

**Track One - Science, Knowledge, and Policy**

Managing the evolving/changing research landscape: AI, **Open Science**

### Submission type

There are two types of submissions (more details [here](#)):

- ☐ **Panel** proposals (CSPC 2024 Overarching Theme, Tracks, and Topics). **80-minute** panels (50-minute presentation, 30 minutes for Q&A session) where a diverse, multisectoral group discusses topics in science policy (see CSPC 2024 Overarching Theme, Tracks, and Topics)

Panelists must be present on-site (in **exceptional cases**, we will try to accommodate virtual attendance for selected speakers).



### List of panelists!

**Note: CSPC prefers in-person ; max 5 people in the panel**

Provisional list: Tibi, Sze Man (MD), Olivia (MD), Yannick (Dev), **Probably someone from Axelys**

There is **NO fee associated with proposal submission**. CSPC is not responsible for speakers' travel and accommodation costs. **Speakers are entitled to register for the Conference at a discounted rate.**

5. Panel Diversity: CSPC is a pan-Canadian forum and a mosaic that is built upon a balanced representation of diversity, considering region, sector, ethnicity, gender, age, and topic, in

addition to creating opportunities for under-represented groups to present their ideas. **These criteria will be heavily considered in the final selection of panels.**

6. The Program Committee, alongside external reviewers from the community, will make **selections based on the following criteria** (details [here](#)).

1. **Quality** of the proposed session: proposal description and justification (30%)
2. An **action** and/or **solution**-oriented focus, as opposed to a statement of the status quo of an issue (15%)
3. A **diverse** range of panelists (20%)
4. **Quality** of the speakers and moderator (15%)
5. Creativity in choice of panel **format** and its **interactivity** (both between the speakers and with the audience) (20%)

If we are accepted, we are going to use [this presentation](#) for visuals.

## Panel Submission text



### Submitted!

#### Message from CSPC

*Cher Tiberius Brastaviceanu,*

*Nous vous remercions pour votre soumission à la CSPC 2024. Votre numéro de référence pour cette soumission est 17.*

**Title** (will be used in the conference program)

Open Science - news from beyond the institutional horizon

Science ouverte : des actualités au-delà de l'horizon institutionnel

First organizer: **Tiberius Brastaviceanu**

Second organizer: **Tse Man**

**1. Quality of the proposed session: proposal description and justification (30%)\***

**Briefly describe the proposed panel, detailing the topic and the various themes and issues that it would cover (400 words maximum)**

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The open science (OSci) movement started by focusing on democratizing access to scientific publications, to broaden international and intersectoral collaboration, and increase the transfer of scientific knowledge. Then, the focus moved one step upstream, providing access to processes of scientific inquiry, by facilitating access to data, protocols and tools. The motivation was to increase transparency and reproducibility of scientific research. This is where the mainstream OSci movement is situated today.

When used in science, open source (OS) software (OSS) and hardware (OSH) increase transparency and reproducibility, by providing access to the inner workings of the tools used in research. Other advantages are the ability and ease to modify OS research tools to push scientific exploration further, and a great cost reduction associated with these tools, which makes the practice of science more accessible in the developing world. These characteristics of OS have fuelled the upstream step of the OSci movement, as mentioned above.

But OSci and OS have more in common, they stem from the same open culture and share a social production model, which is less recognized by the institutional world. It takes grassroots organizations, where the open culture and social production are brewing, to make another necessary upstream step in OSci.

One of the panelists represents Sensorica, a grassroots OSci and innovation community and makerspace based in Montreal. Another one represents [Breathing Games](#), a similar type organization that spans between Canada and Switzerland. Since their inception, around 2011, they have designed OS scientific instruments and medical research devices that embody features that ease the socialization of research activities and raw data. Think about smartphones, not just as communication tools, but also tools to socialize our life. With one click, one can remotely invite someone for dinner or share a picture of the meal.

Moreover, both organizations have built collaborations with academia that led to numerous research grants and publications. Although the advantages of these relations have been largely substantiated, barriers to fruitful collaboration still exist. An important one is the lack of recognition and trust in grassroots organizations within academic circles. Another one is the lack of legitimacy of these communities, which leads to lack of funding to stimulate such collaborations.

Our vision and practice of OSci adds to the mainstream achievements in this domain, new methods and means to socialize research activities, and governance to bridge academia with OS communities, fablabs and makerspaces.

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### **1.b Importance of the topic\***

Explain the importance, novelty, and/or impact of this issue on society (200 words max)

Sensorica and [Breathing Games](#) have communicated their novel approach and achievements in OSci in numerous forums. Despite our efforts, the uptake of these new practices has been very slow. Looking at science beyond academia is a paradigm shift and we anticipate a slow pace of change.

Impact can be described in economic, social and humanitarian terms. The cost of production of new knowledge is diminished when OS scientific instruments are used. Our practice demonstrates that interfacing with grassroots communities and using their capacity further reduces labor and overall equipment costs. Furthermore, interfacing with grassroots communities boosts technology transfer and appropriation by opening to a vast web of existing relations that extend to user groups, entrepreneurial networks, private companies and other academic labs. These relations also carry social motivation, which influences technology transfer to directly impact the social and humanitarian spheres. Feedback from end users is further enhanced by the social nature of the new research and innovation practices.

We will present a project between Sensorica, [Breathing Games](#) and Sainte-Justine Hospital to produce an OS instrument, used in research on Cystic Fibrosis, poised to become a therapeutic device.

Considering the grassroots communities as formidable actors in science is of strategic importance.

### **1.c. Potential sustained value of the panel\***

Explain the potential sustained value of the panel beyond the conference, in terms of follow-ups, calls to action, policy change, etc. (max 150 words)

Members of Sensorica and [Breathing Games](#) have organized a panel at #CSPC2017 and have contributed with two publications at #CSPC2020. Tiberius, the organizer of this panel has been part of both initiatives.

Moreover, both organizations have engaged with various governmental agencies to raise awareness about OS development, OSci and innovation. These consultations can be found here <https://www.sensorica.co/products/Open-Science>

The PEP Master project that will be presented during this panel session will have long-lasting consequences on OSci, as it will further establish trans-institutional science and will transform the medical device regulatory approval processes of Health Canada, by including OS and DIY (Di-It-Yourself) devices, making Canada a leading nation in this domain.

### **1.d. Panel Alignment with Conference\***

How does your proposal align with the conference objectives, overarching theme, and conference topics? (100 words maximum)

CSPC has acknowledged OSci as one of the overarching themes.

We bring a special perspective on OSci to this forum, which comes from the open culture, situated outside of the institutional framework, one of open and grassroots communities and networks.

Our experience undeniably demonstrates the advantage of interfacing academia with grassroots organizations. In contrast, these types of organizations still lack legitimacy. Without sound policies to expand scientific research beyond academia, which is the next logical step for OSci, Canadians will miss out on new possibilities to address wicked problems that plague communities across our vast territory.

## **2. Action or solution-oriented Focus (15%)\***

Explain how your panel session is solution-oriented, focused on futuristic analyses, and forward actions (200 words maximum)

Our panelists will present concrete projects to illustrate synergies between academia and grassroots organizations, and to showcase the social benefits of trans-institutional science, the type of OSci that we are advocating for.

The PEP Master project is an OS and DIY (Do-It-Yourself) instrument used to study adherence to medical treatment for kids with cystic fibrosis. It has been created by [Breathing Games](#) and Sensorica, and is now used at the Sainte-Justine Hospital. This OSci practice even invites patients to the design process, through open innovations practices such as game jams and hackathons.

The panelists will also present their activities to identify the challenges and prerequisites in the Health Canada regulatory approval of the PEP Master as a medical device. This is groundbreaking, since Health Canada doesn't seem to have methods to consider devices that have non-institutional origins. In reality, many OS instruments have reached ISO quality standards and are used in academic settings. New methods and technologies can address potential issues related to quality and security of such devices.

Being able to process devices that originate at the interface between academia and grassroots communities and networks will result in great savings for Health Canada.

## **3. How does your panel fulfill the diversity criteria? (20%)\*\***

Explain how this panel is gender-diverse and includes speakers from under-represented and equity-deserving groups and features provincial/geographical, sectoral, generational, and other elements of diversity (150 words maximum). Click [here](#) for more details on diversity criteria.

At this moment, we have two women and two men on the panel.

One panelist is part of a visible minority group.

#### 4. Quality of the speakers and moderator (15%)\*

Why are the **proposed panelists** the best candidates to discuss this topic? Additionally, explain how the **moderator's qualifications** meet the required criteria. Each panelist must represent at least one of the following qualities:

- **Knowledge, experience, and relevance** to the panel topic
- Ability to **garner public attention**
- Inclusion of the **younger generation** and those who are **new speakers at CSPC**

(150 words maximum)

Tiberius Brastaviceanu, co-founder of Sensorica, has led numerous OS and OSci projects linking grassroots organizations with academia. Internationally known for his contributions to new organizational models, open innovation and OSci. Has great oratory and facilitation experience.

Sze Man Tse, Doctor in Medicine from McGill, holds a Master in Public Health from Harvard T.H. Chan School of Public Health. A long-time supporter of [Breathing Games](#), has first hand experience with the benefits of trans-institutional collaboration. Oversees the use of the PEP Master instrument at Sainte-Justine Hospital.

Olivia Cerutti-Monteventi, a young Intern in Pediatric Pulmonology at Sainte-Justine Hospital, studies the impact of the PEP Master instrument on young patients with cystic fibrosis.

Yannick Gervais, a developer and avid contributor to OS projects. Co-founder of [Breathing Games](#), currently works with Sze Man Tse on the [PEP Master project](#).

#### 5. Choice of panel format (20%)\*

Options for panel format (all panels are 80-minute sessions): Please note you will need to elaborate on the format that you have selected in the questionnaire section. If your description does not match the format selection, it may result in a lower score for these criteria.

The following panel formats are weighted higher to encourage maximum interactivity:

1. An **Interactive** Format (e.g.: Fishbowl, Lightning Round, World Cafe, Pecha Kucha): If your panel will be presented with an innovative interactive format, please select this option.
2. **Debate** Diversity of Perspectives: If your session will be a debate between two groups on a particular topic in which opposing arguments are put forward, please select this option. Ideally, indicate what the opposing opinions are on the issue.
3. **Green Paper** Discussion: If your panel discussion will be based on a green paper- a consultation by one or a collective of organizations mainly to provide input on an existing policy or the development of a new policy, please select this option.
4. **Workshop** (learning session): If your session will be designed to extensively engage with the audience in group learning, education, and/or planning activities and is more geared toward learning opportunities, please select this option.

The following panel formats continue to be eligible for inclusion in the Conference. Please highlight plans for discussion and interactivity in your proposal.

5. **Standard Panel Discussion** Format: If your session is arranged with a few expert panelists presenting findings and discussing a topic, with a minimum of 30 min for a Q&A session at the end, please select this option.
6. **Case Study**: If your panel involves a detailed description and analysis of a particular case or cases, please select this option.
7. **Interview** Format/Q&A session with panelist: If your session is arranged with a moderator asking panelists (maximum two panelists and one moderator) a range of questions to elicit their perspectives on an issue, please select this option.

## Case Study

### 5. b. Interactivity:\*

Explain, based on the format you have chosen for the panel, how you would ensure the interactivity of the session to keep the audience engaged and what tools you might use. Please note there is the possibility of using chat, Q&A, and polling. Please also specify how you will ensure equity in accessibility of your panel for the audience (300 words maximum)

The closest description of our interactive panel format is Case Study.

Considering non-institutional actors, such as grassroots communities and networks, as part of a scientific endeavor is a paradigm shift. In order to bring the audience to the trans-institutional mindframe, we will start by introducing some rationally shocking realities, by presenting some concrete projects and achievements, and exposing the conceptual, procedural and regulatory barriers that we have encountered in interfacing with institutional actors. We will ask questions to the audience to probe the level of understanding and to relate their own experiences to these realities.

According to the feedback that we will gather, the organizer will present a conceptual overview, to co-develop the language required to understand the OSci practices of [Breathing Games](#) and Sensorica.



Next, the PEP Master project will be presented to ground this shared understanding and to provide some examples of activities that have policy-changing consequences.

People from the audience will be asked to revisit their experiences and identify issues that could be addressed by using the OSci methods that Sensorica and [Breathing Games](#) have developed. Together, with the audience, we will try to provide paths for solutions. This will test the level of understanding that we have built with the audience, which will allow the panelists to improve the learning experience. In order to stimulate the discussion, we will explore various topics such as access to materials and equipment, access to talent, transfer and dissemination of scientific knowledge, societal and humanitarian impact, complexity and wicked problems, etc.

We will end the panel with an exercise about formulating new policies to make trans-institutional science a reality in Canada.

**5. c. Please identify which of the following tools will be utilized to engage the audience\***

The following tools are examples only and not a comprehensive list:

- Polling: Sampling the audience and incorporating their thoughts into the presentation
- Working with the audience to generate ideas, such as producing a word cloud, working through a problem-solving exercise, etc.

You are welcome to introduce new ideas for enhanced interactivity.

Working with the audience to generate ideas, such as producing a word cloud, working through a problem-solving exercise, etc.

**Panelist Entry\***

Each panel proposal is allowed a **maximum of 5 speakers** INCLUDING the moderator. Please add your moderator's choice first, before adding the panelists. In exceptional cases where the panel format requires it (such as roundtable), a 6th speaker will be allowed. Please note in the 'Roles on the Panel' dropdown if the person you are adding will serve as a panelist or a moderator.

Tibi, Sze Man Tse, Olivia and Yannick.

# Our topics

under consideration...

- ☐ [Breathing Games](#)
- ☐ Joshua's [FAST](#) and [MOST](#) practice
- ☐ Web3 and open source and open science
- ☐ Regulatory approval for open source DIY medical devices

## Some ideas

First, let's review [The open science handbook](#).

To stimulate creativity, we ask a few key questions to ChatGPT.

### **What are the strategic advantages of a nation state to invest in open science?**

Investing in open science can provide several strategic advantages for a nation state:

1. **Fostering Innovation:** Open science encourages collaboration and knowledge-sharing, leading to accelerated scientific advancements and innovation across various fields.
2. **Economic Growth:** By promoting open access to research and data, countries can attract investment and foster entrepreneurship, leading to economic growth and competitiveness in global markets.
3. **Talent Retention and Attraction:** Open science policies can attract top talent by providing researchers with access to resources, data, and collaboration opportunities, leading to a more vibrant scientific community.
4. **Addressing Societal Challenges:** Open science facilitates the dissemination of knowledge and solutions to pressing societal challenges such as healthcare, climate change, and energy sustainability, enabling more effective policymaking and problem-solving.
5. **International Collaboration:** Open science promotes collaboration among researchers and institutions worldwide, enhancing diplomatic relations and fostering goodwill among nations.
6. **Transparency and Accountability:** Open access to research findings promotes transparency and accountability in scientific practices, leading to **greater public trust in research institutions and government-funded projects**.

Overall, investing in open science can yield long-term benefits by driving scientific progress, economic development, and societal well-being.

### **What are the strongest arguments against an open science governmental policy?**

Some of the strongest arguments against an open science governmental policy include:

1. **Intellectual Property Concerns:** Researchers may be hesitant to share their findings openly if they fear losing control over intellectual property rights, potentially hindering innovation and commercialization efforts.
2. **Competitive Disadvantage:** Some argue that open access to research data and findings could give competitors, both domestic and international, an advantage by providing them with valuable insights without the same investment in research.
3. **Data Privacy and Security Risks:** Open science policies may raise concerns about the privacy and security of sensitive research data, particularly in fields such as healthcare or national security, where confidentiality is paramount.
4. **Cost and Sustainability:** Implementing and maintaining open science infrastructure and platforms can be costly for governments, especially in resource-constrained settings, leading to questions about the sustainability of such initiatives.
5. **Quality Control and Misuse:** Critics argue that open science could lead to a proliferation of low-quality or misleading research findings, as well as potential misuse of data by individuals or organizations with malicious intent.
6. **Academic Culture and Recognition:** Traditional academic reward structures, such as tenure and funding, often prioritize publications in prestigious journals, which may conflict with the principles of open science and hinder its adoption among researchers.

Addressing these concerns requires careful consideration and the development of policies and frameworks that **balance the benefits of open science with the need to address legitimate concerns related to intellectual property, privacy, security, and research quality.**

### **Provide a few cases of great impact of open science initiatives.**

Certainly! Here are a few cases highlighting the impact of open science initiatives:

1. **Human Genome Project (HGP):** The HGP, launched in 1990, aimed to map and sequence the entire human genome. It involved an open science approach, with researchers from around the world freely sharing data and findings. This collaborative effort resulted in the completion of the Human Genome Project ahead of schedule in 2003, paving the way for advancements in personalized medicine, genetic research, and biotechnology.

2. **Open Access Publishing:** The movement towards open access publishing has led to increased accessibility of scientific research to a global audience. Journals such as PLOS ONE and BioMed Central have demonstrated the impact of open access publishing by providing free access to research articles, leading to greater dissemination of knowledge and increased citation rates.

3. **Open Data Initiatives:** Initiatives such as the Open Government Data (OGD) and the Global Open Data for Agriculture and Nutrition (GODAN) have focused on making government data and agricultural data openly accessible. These efforts have facilitated data-driven decision-making, innovation in agriculture, and the development of tools and applications to address food security challenges.

4. **COVID-19 Pandemic Response:** During the COVID-19 pandemic, open science played a crucial role in accelerating research efforts to combat the virus. Open sharing of genomic data, clinical trial results, and research findings facilitated rapid vaccine development, drug repurposing efforts, and the dissemination of best practices for public health interventions.

5. **Citizen Science Projects:** Citizen science projects, such as Galaxy Zoo and Foldit, have engaged volunteers in scientific research by allowing them to contribute to data analysis and problem-solving tasks. These projects have led to significant scientific discoveries, such as the identification of new galaxies and the design of protein structures, while also promoting public engagement with science.

These cases demonstrate the transformative potential of open science initiatives in driving scientific progress, fostering collaboration, and addressing global challenges.

Here are some humanitarian examples of the impact of open science initiatives:

1. **Global Health Data Sharing:** Open science initiatives in global health, such as the Global Health Data Exchange (GHDx), have facilitated the sharing of health data and research findings to address global health challenges. By making data openly accessible, researchers and policymakers can better understand disease burdens, track outbreaks, and develop more effective public health interventions.

2. **Drug Repurposing for Neglected Diseases:** Open science approaches have been instrumental in drug repurposing efforts for neglected tropical diseases (NTDs) and other infectious diseases affecting underserved populations. By sharing data on drug compounds and screening results openly, researchers can identify existing drugs with potential efficacy against NTDs, accelerating the drug discovery process and reducing costs.

3. **Disaster Response and Management:** Open data initiatives in disaster response and management, such as OpenStreetMap (OSM) and the Humanitarian Data Exchange (HDX), have enabled rapid and coordinated responses to natural disasters and humanitarian crises. By

crowdsourcing and sharing geospatial data, organizations can better assess needs, plan interventions, and coordinate relief efforts in affected areas.

4. **Accessible Education Resources:** Open educational resources (OER), including textbooks, courses, and instructional materials, provide free and open access to educational content, particularly in regions with limited access to traditional educational resources. Initiatives like Khan Academy and OpenStax have democratized access to quality education, empowering learners worldwide to acquire knowledge and skills.

5. **Community-Driven Research:** Citizen science projects focused on humanitarian issues, such as mapping informal settlements or monitoring water quality, engage local communities in data collection and research efforts to address pressing social and environmental challenges. These participatory approaches promote community empowerment, knowledge exchange, and sustainable development outcomes.

These humanitarian examples underscore the potential of open science initiatives to improve health outcomes, enhance disaster response capabilities, expand access to education, and empower communities to address their own needs.

Here are a few cases where nation states have greatly benefited from implementing open science policies:

1. **Finland:** Finland has been a pioneer in open science policies, with initiatives such as the Finnish Open Science and Research Initiative (ATT) promoting open access to research publications, data, and methodologies. These efforts have contributed to Finland's reputation as a leader in scientific research and innovation, fostering collaboration among researchers, attracting international talent, and driving economic growth.

2. **United Kingdom:** The United Kingdom has implemented various open science policies, including mandates for publicly funded research to be made openly accessible through repositories such as UK PubMed Central. These policies have led to increased visibility and impact of UK research outputs, facilitated interdisciplinary collaboration, and supported evidence-based policymaking in areas such as healthcare and environmental conservation.

3. **Netherlands:** The Netherlands has embraced open science principles through initiatives such as the National Plan Open Science, which aims to make all publicly funded research publications open access by 2020. These efforts have positioned the Netherlands as a leader in open science advocacy, fostering innovation, knowledge exchange, and international collaboration across diverse fields of research.

4. **Norway:** Norway has implemented open science policies to promote transparency, collaboration, and innovation in research. Initiatives such as the Norwegian Open Research Data initiative encourage researchers to share data openly, leading to improved research

reproducibility, increased scientific impact, and enhanced public trust in research institutions and government-funded projects.

5. **\*\*United States:\*\*** While the United States does not have a centralized open science policy, various federal agencies have adopted open access mandates for research funded by taxpayer dollars. For example, the National Institutes of Health (NIH) require grantees to make their peer-reviewed publications openly accessible through PubMed Central. These policies have contributed to the dissemination of research findings, accelerated scientific discovery, and supported the development of innovative solutions to societal challenges.

These cases illustrate how nation states can benefit from embracing open science policies to enhance research outcomes, drive innovation, and promote the public good.

### Revising our understanding of open science.

From ChatGPT: Open science refers to the movement toward **making scientific research, data, and methodologies openly accessible** to all levels of society, including researchers, policymakers, and the general public. It emphasizes transparency, collaboration, and the sharing of knowledge to accelerate scientific progress and address societal challenges. Open science encompasses various practices, such as open access **publishing**, open data sharing, **open source** software development, and **open collaboration models**. By **promoting greater accessibility and inclusivity in the scientific process**, open science aims to foster **innovation**, enhance research **reproducibility**, and promote **public trust** in science.

From Perplexity: Open science is a movement to **make scientific research and its dissemination accessible** to all levels of society, amateur or professional [2](#). It encompasses practices such as **publishing** open access, encouraging open-notebook science, broader **dissemination** and engagement in science, and making it easier to publish, access and communicate scientific knowledge [2](#).

The primary principles of open science include [2](#) [3](#) [4](#):

- Open methodology
- Open source
- Open data
- Open access
- Open peer review
- Open educational resources

Open science aims to **make scientific processes and practices more open and transparent** [3](#). It accelerates discovery by enabling others to build on previously validated research [5](#).

Proponents argue that open science will make science more reproducible and transparent, have more impact, and **help answer uniquely complex questions**

### **Advantages of open science from Perplexity**

Open science has many benefits for research and society [1](#) [3](#) [4](#):

- **Increased visibility and impact** of research outputs [1](#) [2](#)
- **Faster knowledge transfer and innovation** [3](#) [4](#)
- **Improved reproducibility and quality of research** [3](#) [4](#)
- **Greater collaboration and reduced duplication of efforts** [3](#) [4](#)
- Democratization of science and **inclusion of diverse perspectives** [3](#)
- Equitable access to scientific knowledge for all [3](#) [4](#)
- **Increased transparency and accountability** of the research process [3](#) [4](#)
- **Engagement of citizens in scientific research** [3](#) [4](#)
- **Addressing global challenges through international collaboration**[4](#)

Open science makes research more efficient by enabling reuse of data and methods, allows for wider scrutiny and validation of results, and facilitates the transfer of knowledge to society [4](#). It has the potential to benefit researchers, institutions, funders, policymakers, and the general public [1](#) [2](#) [4](#)

# Promotions during the event

- Promote Breathing Games to other hospitals and universities around the world.
- Promote Sensorica's [open science consulting](#) and [open scientific instruments services](#).



# {Signalization tools}



*{symbol for process/status updates - use this to signal important milestones in the process}*



*{symbol for notes - use this to post reminders or short messages for self or to collaborators}*



*{symbol for important information - use this to attract collaborators' attention}*



*{symbol for ToDos - use this to signal to your collaborators about what they can do}*



*{symbol for alternatives: enumerates possible solutions to consider}*



*{symbol for reasoning: presents arguments about possible choices}*



*{symbol for Information: tells you how stuff works.}*



*{symbol for growing consensus: a summary of a section of this report}*