**Market Strategy Science IWG 2017-2020;**

(Concept November 2017)

**Intro**

Scientific research becomes more and more important, even in the public awareness (at least in many parts of the world, where the leaders understand, that wealth comes from research), see reports of Curiosity or the Rosetta missions, Mozilla Science Lab and others. It is felt important that the Science IWG positions itself to benefit from the opportunities this trend provides.

The initial findings and tentative conclusions in the concept strategic plan result from collating desktop research, individual members’ input from a workshop at ECE 2017 and an email survey into a comprehensive and shared view of the way forward for the Science IWG. This version is a concept for further discussion.

**Stakeholders, Partners and Competitors**

Stakeholders:

* Member organizations
* Research institutes
* Individual researchers/ developers/maintainers of scientific software
* Consultancies
* Companies offering scientific services and/or software
* Software developers in academia & industry

Competitors:

* Numfocus Foundation
* Mozilla open science
* Companies who offer scientific software, but closed source

Hybrid:

* Any Eclipse WG is a potential partner and competitor.

Partners

* Other research institutes or companies who support the development of open source software.
* Researchers, PhD students, who like to write their own extensions.

**Science IWG as-is: a SWOT Analysis**

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| **Strengths** * Diverse membership i.e. academics, institution, individuals, companies, which provides input from different fields of scientific research.
* Good synergy and engagement from individuals who participate
* Highly interesting and forward looking projects
* Members appear to be generous with their time
* Members have strong, mature Eclipse development skills
* Members maintain a number of very mature Eclipse-based applications
 | **Weaknesses*** Lack of investment/resources
* No dedicated marketing/evangelism efforts
* No "one top selling" product we are working on. Instead there are several small crosscutting projects like Eclipse January (matrix operations) or Eclipse EAVP (visualization).
* The mindset of the scientist (“my own solution works”) hinders adoption of commonly used projects in general
* Members work in very disparate areas of science with little collaboration on a portfolio of related software applications (the disparate sciences are represented by disparateapplications).
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| **Opportunities*** Generalize projects/components into a single library
* Focus on science for (specific) industries; not just software for research but software born from science that has wider implications e.g. IoT, Data science, etc..
* Importance of scientific research increases; increasingly important, even in the public awareness (at least in many parts of the world, where the leaders understand, that wealth comes from research), see reports of Curiosity, the Rosetta missions, Mozilla Science Lab a.o.
* Pull in other projects, widen body of expertise, Extend applications beyond Eclipse/Java
 | **Threats*** Lack of comprehensive strategy that relates to the whole WG
* Long term perspective for projects (A challenge is to create a public awareness, that software is needed to do research and that it needs to be maintained over years. Starting a small scientific project on GitHub is fine, but after a few months/years it's hard or impossible to use it. It would be better if a larger organization, like the Eclipse Science Working Group, is a place to create and run projects in a long term perspective)
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**Where do we want to be in 2020?**

Our mission:

***‘****To create a community of institutions, corporations and individuals working together on a comprehensive suite of open source software used for science and science related applications in industries.****’***

**Rationale**

The Science portfolio of projects is presently perceived by members as rather disparate; a variety of specific tools, fit for a particular use case at hand, but not easily translatable into sustainable solutions.

Unfortunately a disparate group of projects is less recognizable than a comprehensive suite of related projects for a specific group of users. This hinders the sustainability of each of the individual projects due to fragmentation of stakeholders, attention and resources.

A comprehensive sustainable suite of projects requires a certain focus. Projects, which share a focus on a shared theme and with a specific group of users in mind, benefit from increased recognition through targeted marketing and a turnkey appeal to users. Additionally project interdependency and user-group focus will increase the sustainability of the projects; the more stakeholders feel the ‘pain’ the more they share the burden of maintenance.

**Science market strategy**

The success of the Science IWG is dependent on choices with regard to its project/portfolio end-user group combinations. It is comparable to companies’ product-market combinations: is there a beneficial future for the organization to invest in a product or project?

Decisions and considerations to take into account:

* What type of projects appeals to which user group (e.g. an Eclipse IDE for Scientists)?
* Are there gaps in the portfolio for a chosen user group?
* What are the resources needed to get the project done?
* Is that user group potentially resourceful enough as well as willing and able to be responsible for the individual project’s or even portfolio’s sustainability?

Regardless of the above strategic choices made, some more generic - Working Group wide - marketing actions can be put into place.

A portfolio plus user group focus enables growth of a comprehensive Science WG ecosystem:

* Stakeholders with similar needs can rally around one or more projects
* A thematic story line standardizes and focuses promotional efforts for increased visibility of the WG in general and the projects in particular
* A widely shared technology leads to better software, makes each participating project stronger and boosts sustainability

Through focus on:

* Engaging existing and potential stakeholders
* Promotion of projects and best practices
* Stimulation of interaction between members and other IWG’s

By means of:

* Recruit projects for the gaps in the portfolio; software tools and platforms with an open source governance model for specific user groups
* Create projects in house and with other IWG’s, if no existing technology is available or deemed insufficient
* Push the IWG brand, projects and offerings in the scientific community
* Enlist new member, partner and developer participation

**Marketing: leverage existing resources**

Proposed combination of marketing strategies:

1) Marketing communications:

· Blanket: Push the Science WG brand and value in conjunction with individual/packaged projects’ brands and related offerings in North-American & European Science sector

· Targeted: Verticals with Big Data/Quantum Computing requirements

2) Co-marketing

· Branding opportunities available only to member organizations and individuals.

· Join third party events with members and partners

3) Ingredient marketing to emphasize the value of the portfolio

· “Build on Eclipse technology for Science”

4) Affiliate marketing

· Affiliation and collaboration with partner organizations

· Joint events with other IWG’s (e.g. RPE with LocationTech)

· Joint industry sector presence with members & partners

**Science IWG target audiences to create value for**

Individual developers:

* Retention of present Science projects
* Invitation to contribute or develop new Science projects
* Outreach on how open source (licensing, contributor license agreements, governance) ‘works’.
* Recruit new committers/contributions coming from related projects

(Potential) member or partner organizations:

* Industrial: sector organizations with a science departement
* End-users: governmental, industrial and commercial labs
* Institutional: academic and (applied) research institutes

End-user organizations/project sponsors:

* New/emerging science intensive sectors: e.g. data science related
* (Semi-) Governmental agencies: European Commission, Space agencies

**Value propositions and offerings**

*Technical/developers:*

* The Eclipse Foundation offering;
	+ IT- development infrastructure
	+ Governance
	+ IP management
* A how-to engage with our technology, e.g.;
	+ Boilerplate project for new Eclipse-based scientific software
	application (for student projects, new projects, etc)
	+ Cookbook of visualization & UX principles for scientific software
	+ Cookbook of code for file interchange (import/export) in standard
	scientific formats
	+ Show and tell sessions, where members invite critical review of
	their applications

Value we bring: innovative technology, proven stable technology/reassurance, infrastructure and organizational framework and a peer group.

*Member organizations:*

* Visibility and networking: brokering, events, additional capabilities/resources
* Leverage Eclipse Foundation branding and channels
* Commercial tooling: co-branded collateral, white papers
* Value packaging: e.g. tool chains for analysis and visualization

Value we bring: credibility to our members and partners, engaging with the Science WG and Eclipse Foundation ecosystem.

*Partners:*

* Reciprocal access to networks and platforms

Value we bring: access to latest open technology and eco-system

*End-user organizations/project sponsors:*

* Visibility and networking: brokering, events

Value we bring: a sustainable ‘home’ for their projects

**Key channels and activities**

How do we reach our audiences?

Through event organization, -presence, -attendance, -presentations:

* Science Tour: around members & partners, in conjunction with third party events (plus code sprints?)
* Data related events: in conjunction with members and other IWG’s
* Presentations at other science-related events by members

Online promotion:

* Website: regular updates and more interactive
* Quarterly Newsletter and/or Eclipse Newsletter Science issue
* Twitter: Science, Eclipse and individuals’ accounts
* LinkedIn: Besides Science and related Eclipse groups also third party groups
* Various mailing lists: Science, Eclipse Working Groups, other community lists
* Meet ups: for targeted projects a forum for users to meet and build community
* Press list science sector and related media: news releases/media relations

Collateral for online download with registration and/or offline support of members at events:

* Science brochure: introducing the working group plus individual projects
* Whitepaper(s): ‘the challenges we tackle and how’

Brokering for member organizations:

* Offline: personal brokerage through Eclipse staff, IWG members, events sharing and subsidies
* Online: Eclipse and Science websites, Science and other IWG lists and third party lists

**Resources and Planning**

The above listing of activities is largely dependent on available resources. In the absence of these resources the most feasible activities are those that have a high ‘lever’ through present membership, third parties and partners and existing marketing infrastructure.

Presently available resources, without prioritization of the above choices:

* Marc Vloemans: events, ecosystem growth, marketing, brokering (not full time)
* Eclipse various: Marketing department (Eclipse Newsletter issues, Press releases, website and social media)
* Science Working Group: Science WG website, mailing list, Twitter
* Individual members: spotting potential members, partners and projects, presence/presentation/participation at relevant events, members’ websites and social media accounts

A generic 2018 activity plan for the Science IWG at large and existing projects in particular can be determined after agreement on the above.

*However, the plan does not reflect yet the choices to be made regarding focus on combinations of user groups and projects/project portfolio. Promotional activities are therefore still generic, which may hinder the effectiveness of these activities.*