

Khronos Advisory Panel BOF

Neil Trevett | Khronos President

NVIDIA Vice President Developer Ecosystem

OpenCL Working Group Chair

ntrevett@nvidia.com | [@neilt3d](https://twitter.com/neilt3d)

Boston, May 2019



Thank You for Coming!

- **The purpose of this session is to invite you to consider joining the OpenCL Advisory Panel**
 - A vital channel for the OpenCL Working Group to receive feedback from the wider community to ensure we are meeting the needs of the industry
 - Especially if you are an active user/programmer for OpenCL
- **We have just a few slides:**
 - What is Khronos and how it works as an organization
 - What is an Advisory Panel?
 - Why should I join - and what happens if I do?
- **Then open up the floor for questions and discussion**
- **But first - brief introductions!**

Khronos Mission

KHRONOS GROUP

Over 140 members worldwide
Any company is welcome to join

PROMOTER MEMBERS

Members include: AMD, Apple, arm, EPIC GAMES, Google, HUAWEI, Imagination, intel, NVIDIA, QUALCOMM, SAMSUNG, SONY, VALVE, VeriSilicon, 3D Incorporated, Adobe, AIMOTIVE, Almalence, amazon.com, Au-Zone, AXELL CORPORATION, AXIS COMMUNICATIONS, BASE MARK, BINOMIAL, BLIZZARD, BOEING, BROADCOM, BRENWILL, cadence, CAICT, codeplay, codeweavers, Continental, COREAVI, DASSAULT SYSTEMES, DELL, DGG, CATAPULT Digital, DisplayLink, DMP, Esperanto Technologies, ETRI, EYEWAY, Fraunhofer, Fujitsu, GIGAMONITOR, hp, HITACHI, Inspire the Next, htc, igalia, IKEA Communications AB, Imperial College London, ITRI, KALRAY, KDAB, KNU, LG, Linaro, logitech, LUNAR, magic leap, matrox, MEDIATEK, mercury systems, Microsoft, MIT Lincoln Laboratory, MITSUBISHI ELECTRIC, mobica, moz://a, NEC, NIHON UNIVERSITY, Nintendo, NOKIA, NSI-TEXE, NXP, oppo, OSU, ofoy, OKTETS, PEAKHILLSGROUP, Pico, pluto, RAZER, RENESAS, Rockwell Collins, 서울대학교, 兆芯, siru, socionext, STARVR, STREAM High Performance Computing, SYNOPSYS, TAKUMI, TAMPERE UNIVERSITY OF TECHNOLOGY, TEXAS INSTRUMENTS, thinci, Think Silicon, tobi, umbra, Unity, 清华大学, University of BRISTOL, UNIVERSITY OF TORONTO, University of Windsor, UX3D, VAFJQ, Visteon, vmware, vrg, XILINX, ZERO LATENCY, zSpace

Khronos members are **industry leaders** from around the world that join to **safely cooperate** - to advance their own businesses and the industry as a whole



Khronos is an **open**, member-driven industry consortium developing **royalty-free standards**, and vibrant ecosystems, to harness the power of **silicon acceleration** for demanding **graphics rendering** and **computationally intensive** applications

Active Khronos Standards

HIGH PERFORMANCE 3D GRAPHICS



3D ASSET AUTHORING AND DELIVERY



PORTABLE XR – VIRTUAL AND AUGMENTED REALITY



PARALLEL COMPUTATION, VISION, MACHINE LEARNING AND INFERENCE

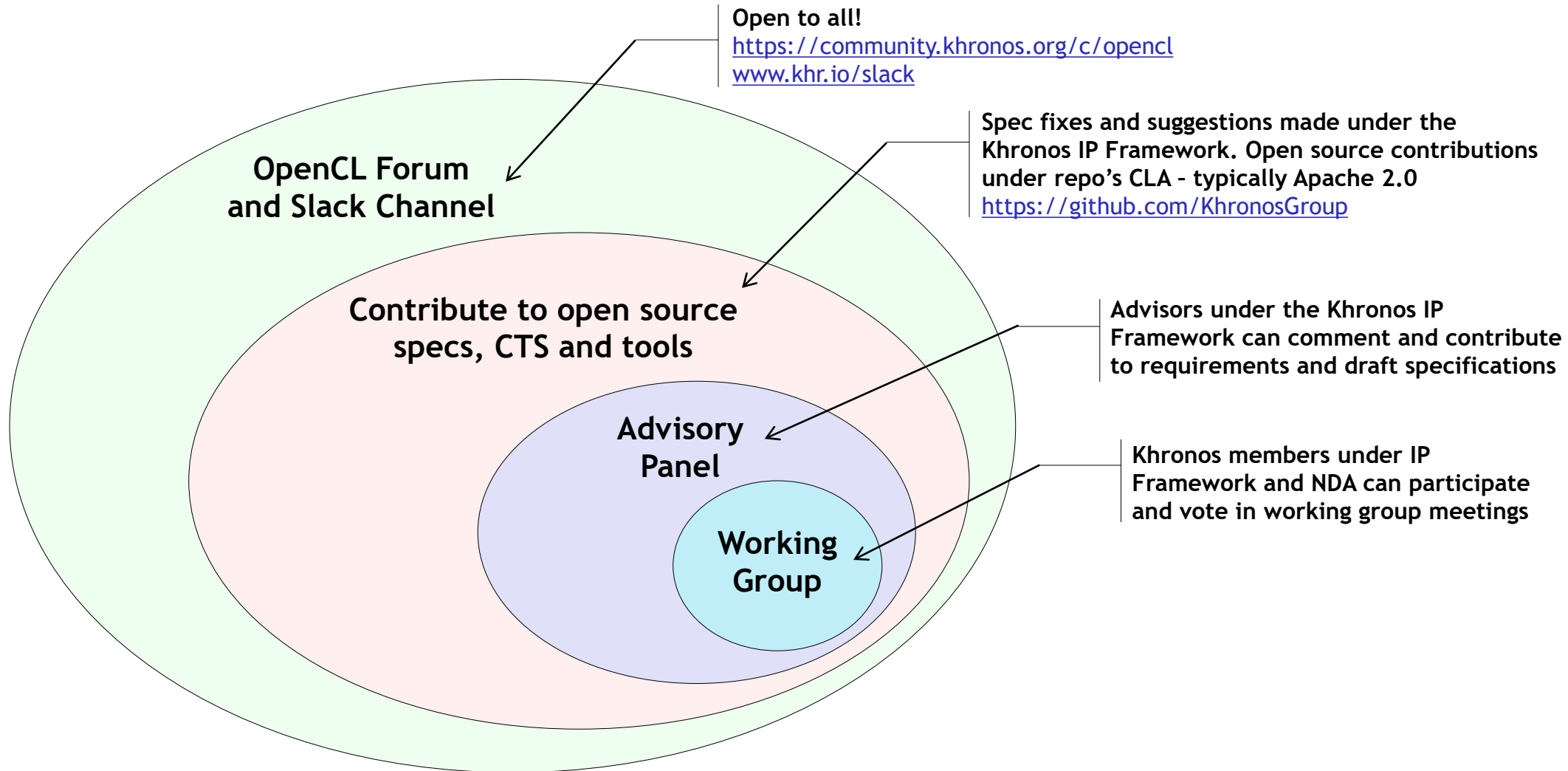


SAFETY CRITICAL FORUM: Creating API design guidelines for markets requiring safety certification

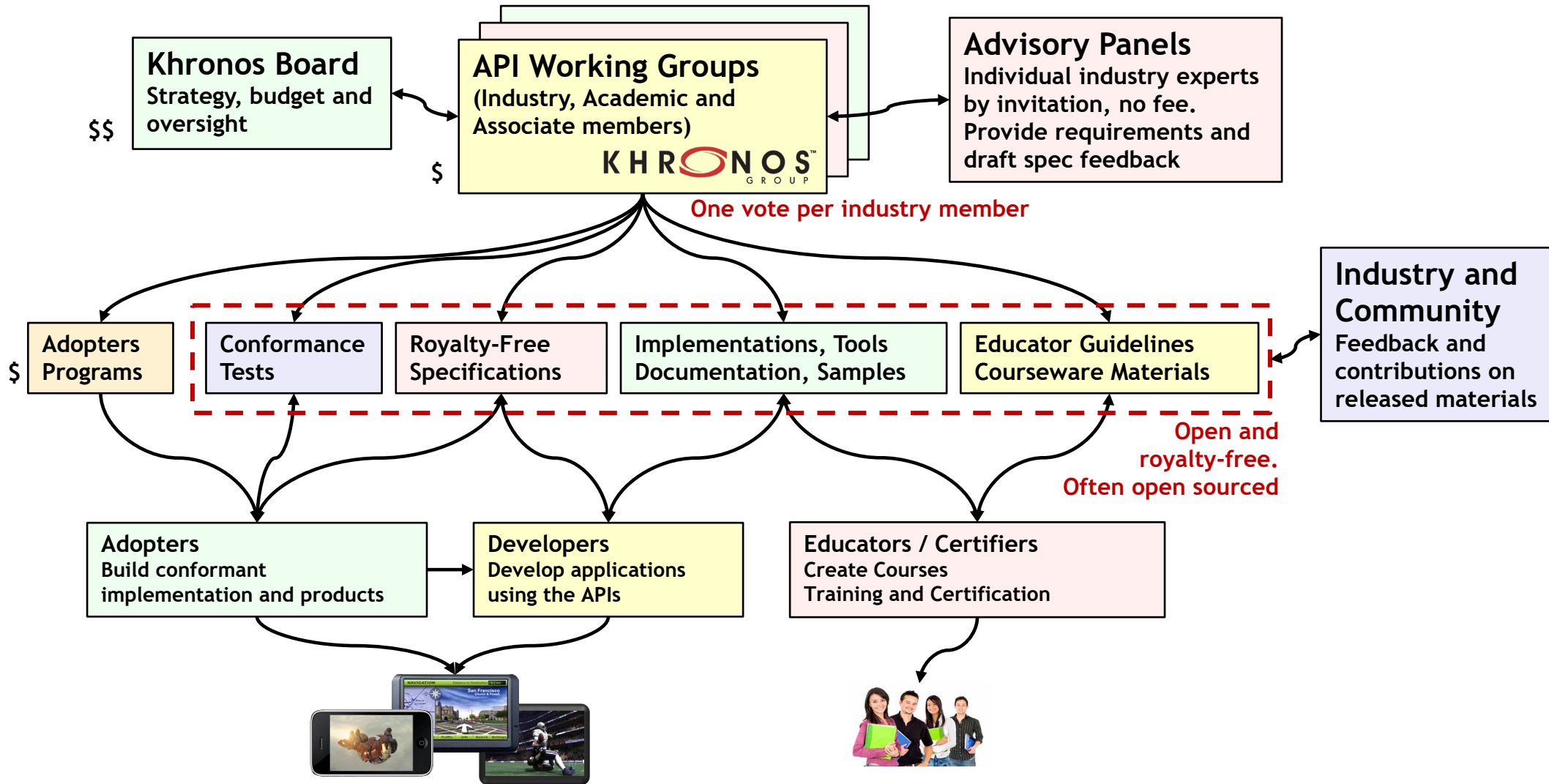


Industry involvement, engagement and feedback are the lifeblood of any successful standard

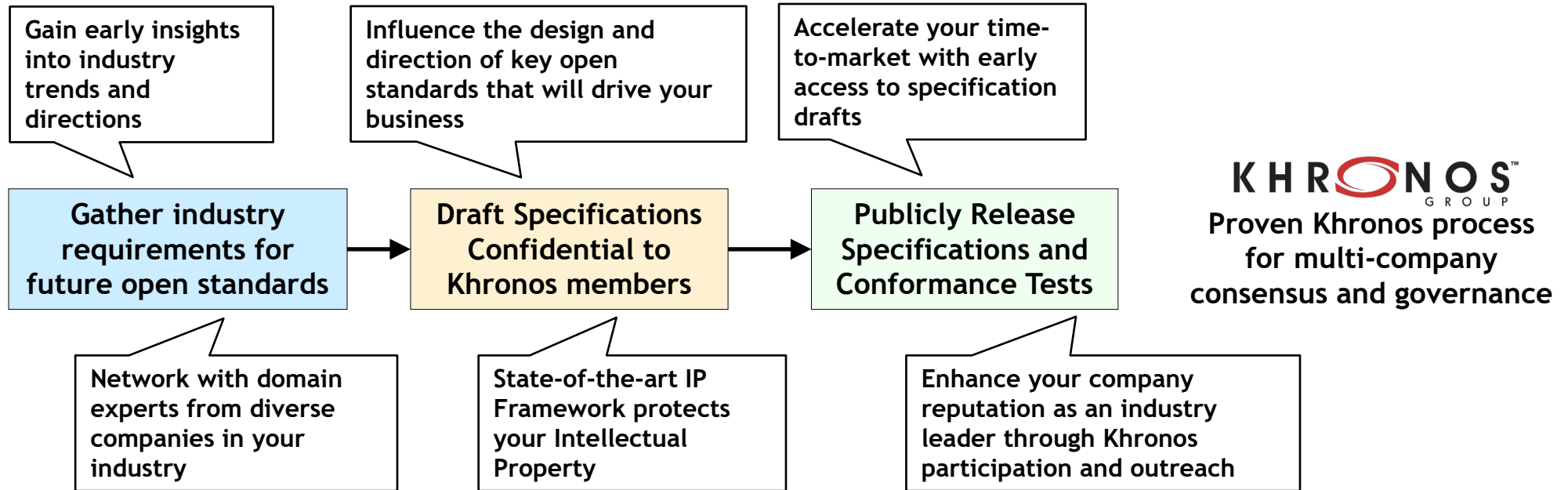
Levels of Khronos Engagement



Khronos Cooperative Framework



The Value of Khronos Participation

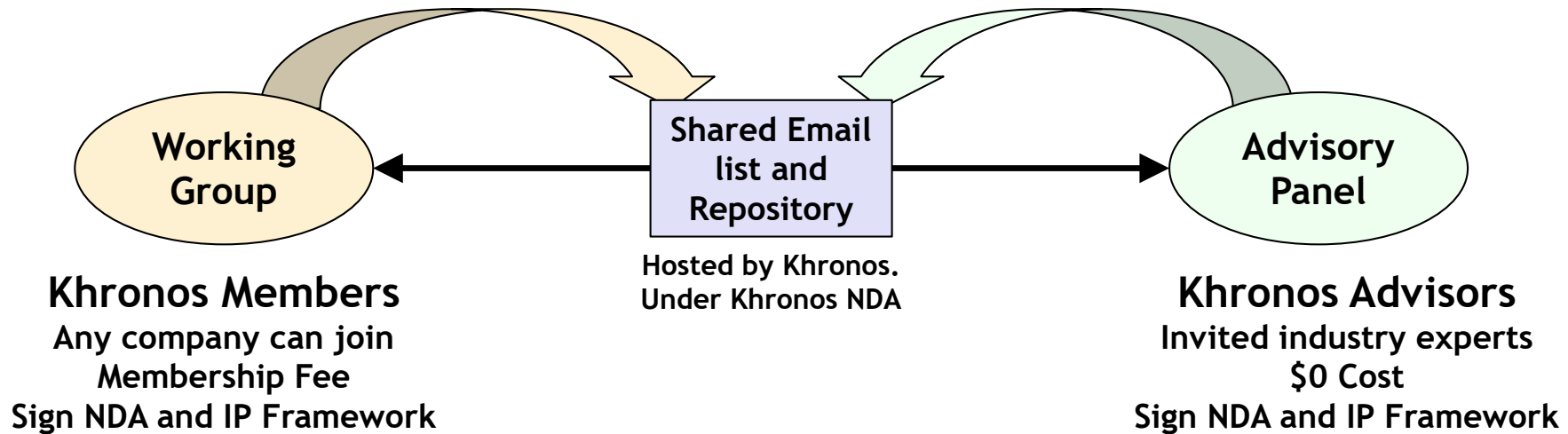


Khronos membership is open to any company for access to all standardization initiatives
Annual membership fees start at \$3,500 for smaller companies
<https://www.khronos.org/members/>

Khronos Advisory Panels

Specification drafts and invitations for requirements and feedback

Requirements and feedback on specification drafts



Advisory Panels currently available for Vulkan, OpenCL, SYCL, NNEF and OpenXR

Advisory Panel Signup Process

- Send a one paragraph application email to opencl-wgchair@khronos.org
 - Who you are and your background
 - What is your interest and expertise in OpenCL
 - How you are interested to contribute
- The OpenCL working group will vote to approve your application
 - The working group meets weekly - rapid turnaround
 - If approved, Khronos will invite you to execute the Advisory Panel Participation Agreement
 - <https://www.khronos.org/files/khronos-advisory-panel-participation-agreement.pdf>
- Execute and email back the Khronos Advisory Panel Participation Agreement
 - Essentially an NDA, a CTS source license and agreement to abide by the IP Framework:
 - You won't assert your patents against any CONFORMANT implementation of a RATIFIED Khronos Specification (no patents need be disclosed)
 - You can sign as an individual or on behalf of your company
 - If you sign as a company you can also designate colleagues for Advisory Panel Privileges (1-2)
 - There is no Advisory Panel Membership Fee

What Happens Then?

- **The Working Group will reach out regularly on the Advisory Panel Email List**
 - Request for input on use cases and requirements
 - Seeking feedback on design directions and draft specifications
 - Ecosystem feedback on tools, libraries, sample code etc.
- **Right now the Working Group is primarily seeking feedback on OpenCL Next**
 - Including Feature Sets, kernel language evolution etc.
 - A significant opportunity to move OpenCL forward - more details tomorrow 😊
- **The Working Group may arrange occasional meetups or WebEx teleconferences**
 - For more real-time interaction over key issues and directions
 - E.g. maybe an actual NDA AP meeting here at IWOCCL next year
- **Advisory Panel members are always welcome to email the Working Group**
 - With questions, issues and opportunities
- **There is no minimum commitment to time, effort or travel**
 - You should engage to best suit your personal and business interests
 - All Advisory Panel Invitations are reviewed and renewed annually

Questions and Discussion

- Does joining up sound interesting and relevant to you?
- What topics would you most like to have input and feedback on?
- Any suggestions on how to improve this process?

- Email your brief intro to opencl-wgchair@khronos.org

**Thank you for considering joining the OpenCL Khronos Advisory Panel!
We hope we get a chance to work with you, and that the experience proves to be rewarding!**

