



CEO's Report

Michael Wong
CEO OpenMP

SC 11 Seattle
Nov 15, 2012



Agenda

- # **The OpenMP ARB**
- # History of OpenMP
- # Activities over the last year
- # Activities for the next year
- # Towards 4.0

The OpenMP ARB

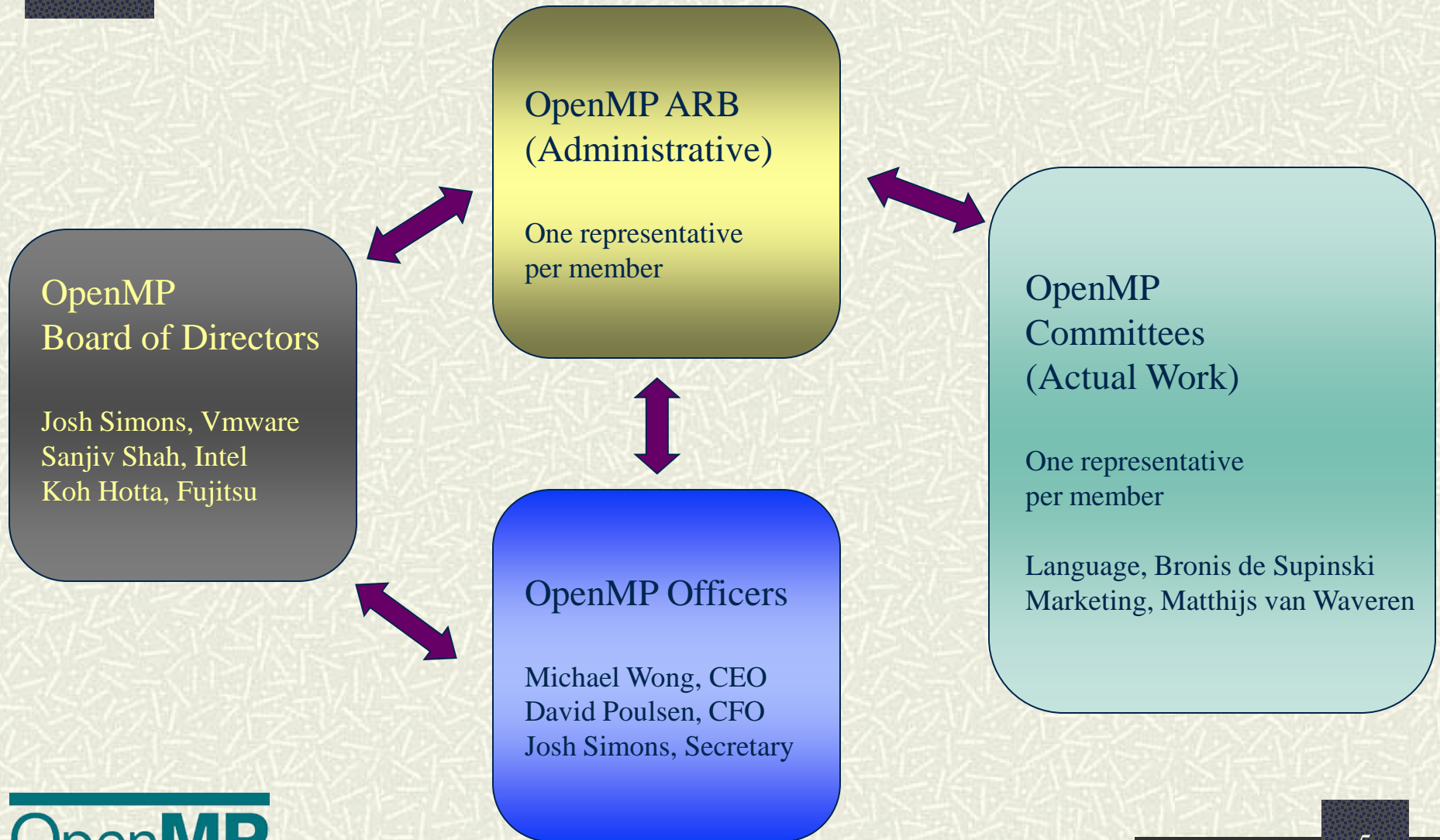
- # The care of OpenMP is in the hands of the OpenMP Architecture Review Board (the ARB).
- # The ARB:
 - Interprets OpenMP
 - Writes new specifications - keeps OpenMP relevant.
 - Works to increase the impact of OpenMP.
- # Organizations join the ARB - not individuals
 - Current members
 - Permanent: AMD, Cray, Fujitsu, HP, IBM, Intel, Microsoft, NEC, SGI, Oracle/Sun, STMicroelectronics/PGI
 - Auxiliary: ASCI, cOMPunity, EPCC, LLNL, NASA, RWTH Aachen

New Members

Rapid growth in membership

- NVIDIA – U.S.
- Texas Instrument – U.S.
- CAPS Enterprise – France
- Argonne National Laboratory – U.S.
- Oak Ridge National Laboratory – U.S.
- Los Alamos National Laboratory – U.S.
- Texas Advanced Computing Centre – U.S.

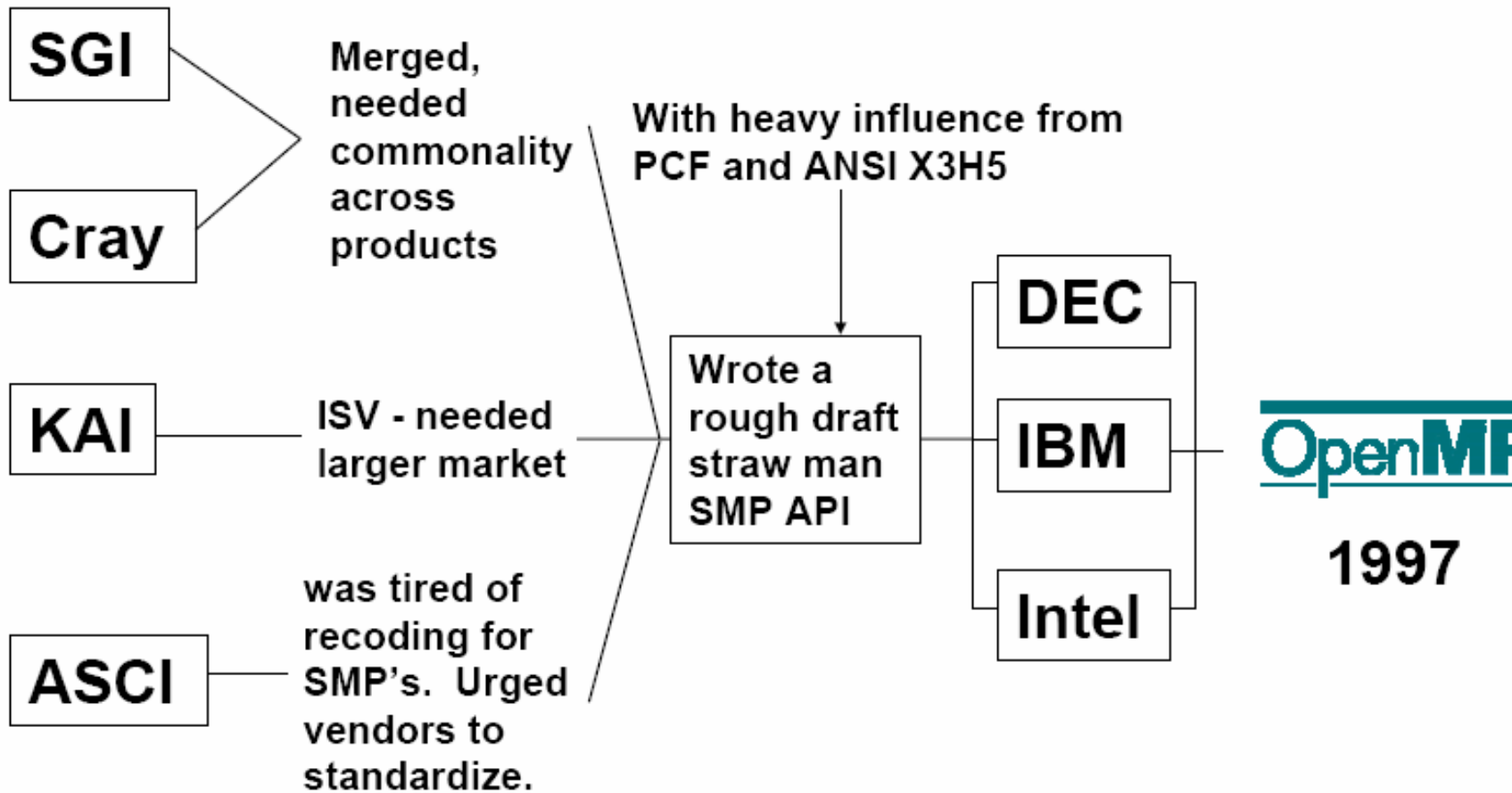
OpenMP ARB Current Organization



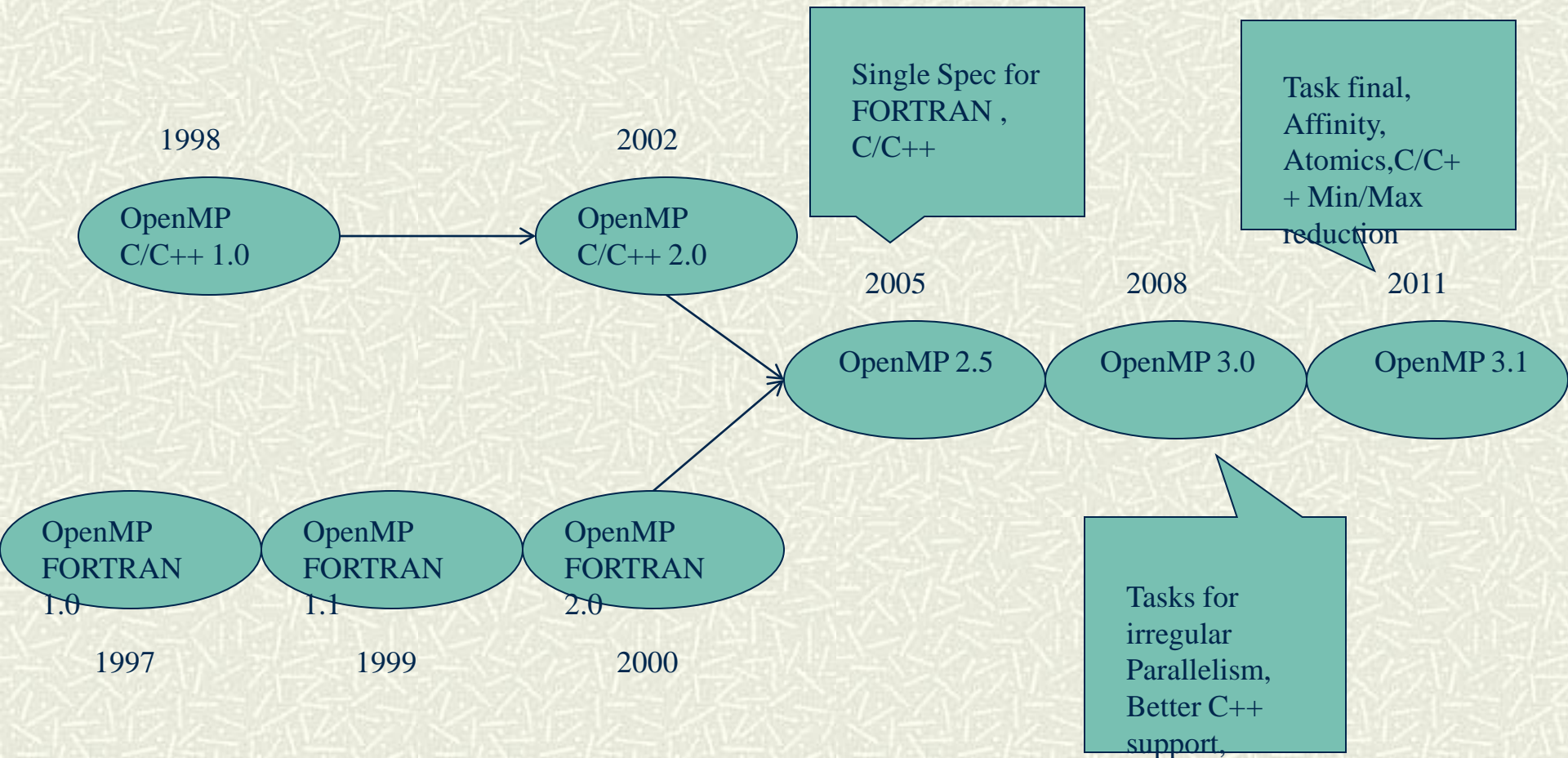
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Pre- 1997: Ancient times



1997-2011: A New Era



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Where are we today?

- # OpenMP is 14 years old this year (1997)
- # OpenMP is pushing into the embedded space with TI's product
- # OpenMP is in the accelerator space with PGI and Cray's products and is being incorporated in the specification
- # OpenMP on all laptop/desktop/SC products
- # OpenMP in GCC, available for free to all
- # OpenMP in all major vendor compilers

Activities over last year

- # Thanks to Larry Meadows, past CEO
- # 3 Language meetings
 - Santa Clara, Chicago, Barcelona
- # IWOMP 2011 Chicago, Argonne NL
 - Acquired iwomp.com along with iwomp.org
- # Website improvements
- # SC11 and MultiCore Expo 2011
- # And what everyone is asking about...

OpenACC

- # A spinoff from 4 OpenMP Members
 - NVIDIA, PGI, Cray, CAPS
- # To address immediate customer needs
- # To hold the IP
- # And to Beta test the OpenMP Accelerator implementation
- # In time, will be folded back to OpenMP in some form
- # And most importantly ...

OpenMP 3.1 is released!

- # Congratulations and thanks to Bronis de Supinski
 - and all of the omp-lang team for releasing a specification for the ages.
 - More on this in Bronis talk
- # First compiler to support 3.1
 - GNU 4.7
 - Many more coming

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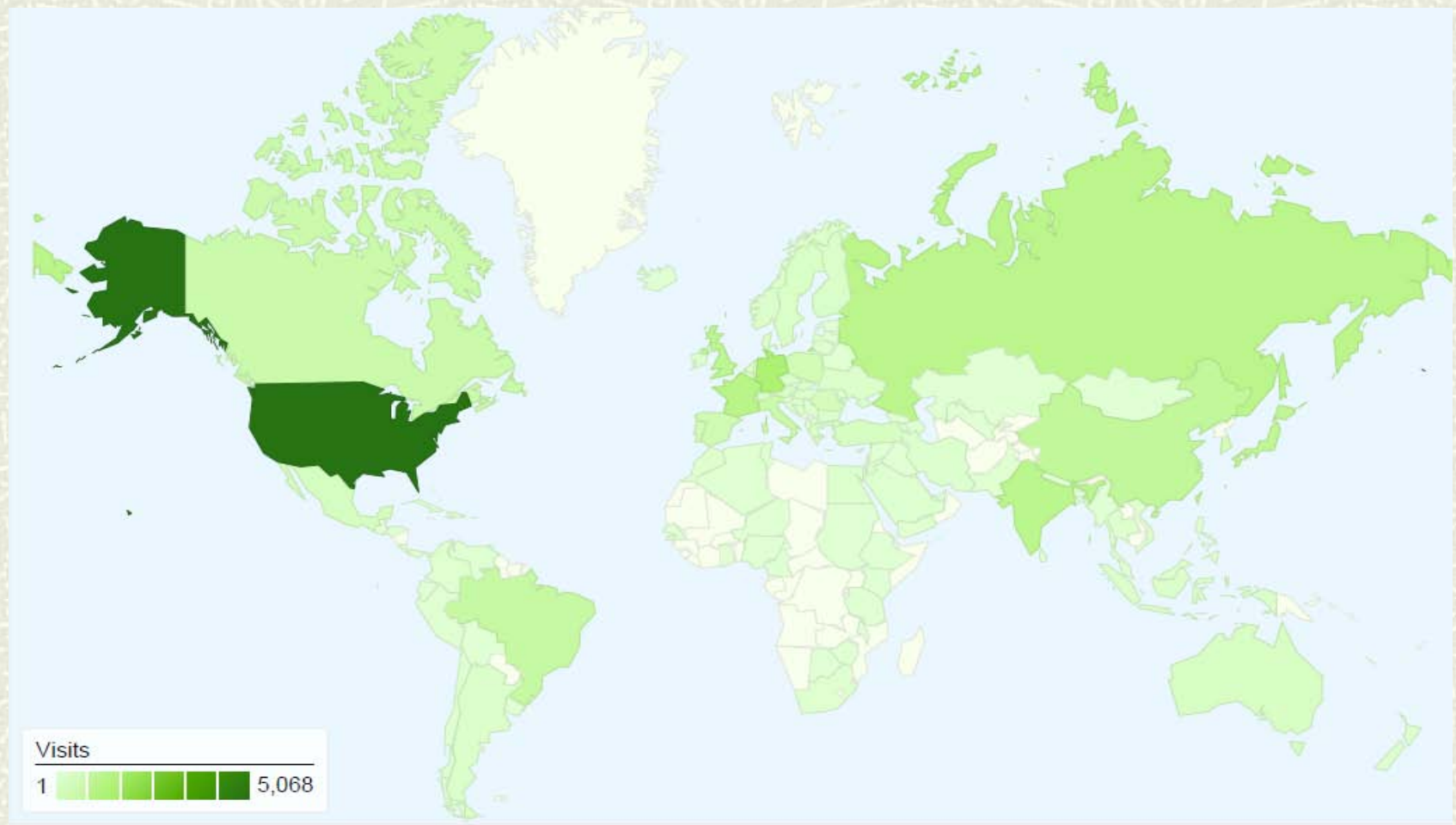
OpenMP 4.0

- # Bronis de Supinski continue to chair the committee
- # Schedule to be fixed in advance (timeline and milestones, see our new calendar on site)
 - <http://openmp.org/calendar.html>
- # Drive to 4.0
 - Accelerators, Error Model, Affinity, Tasks, Memory Model, new base language

Connect OpenMP with Users

- # Hold our leadership in HPC community
- # Aggressive expansion into non-traditional OpenMP areas
 - Oil&Gas, Financial, Biotechs, graphics, games, consumer electronics
 - To be discussed in OpenMP Lang
 - And ARB F2F meetings

Where are OpenMP Users?



Lang Meeting coming near you

- # Lang Committee Telecons weekly
 - Active Subgroup Telecons weekly
- # Move Language meetings close to OpenMP vendors/users (in NA, Europe/Asia/SA)
 - Solicit hosts for OpenMP Language meetings
- # Upcoming in 2012
 - San Francisco - Silicon Valley Companies
 - Rome (IWOMP SC chair report) - CASPUR
 - We have a guest surprise
 - Toronto (tentative) - IBM

Do more with openmp.org

- # Active News update and Discussion Forum
- # Tutorial Material
- # Google calendar schedule
 - <http://openmp.org/calendar.html>
- # Gather info on Who Uses OpenMP / How?
- # More frequent, scheduled press releases
- # Extend beyond HPC Tradeshows
 - Multicore/Embedded Expo, ISC? SIGGRAPH?
Oil and Gas, Financial, BioTech, CES?

Starting with SC 11

- # Many tutorial sessions
- # BOF session
- # OpenMP Booth
 - VIP segment
 - Demo courtesy of RWTH Aachen
 - Hand outs from many companies
 - 3.1 Summary cards

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OpenMP 4.0

- # See Language chair report
- # Aiming for Nov 2012