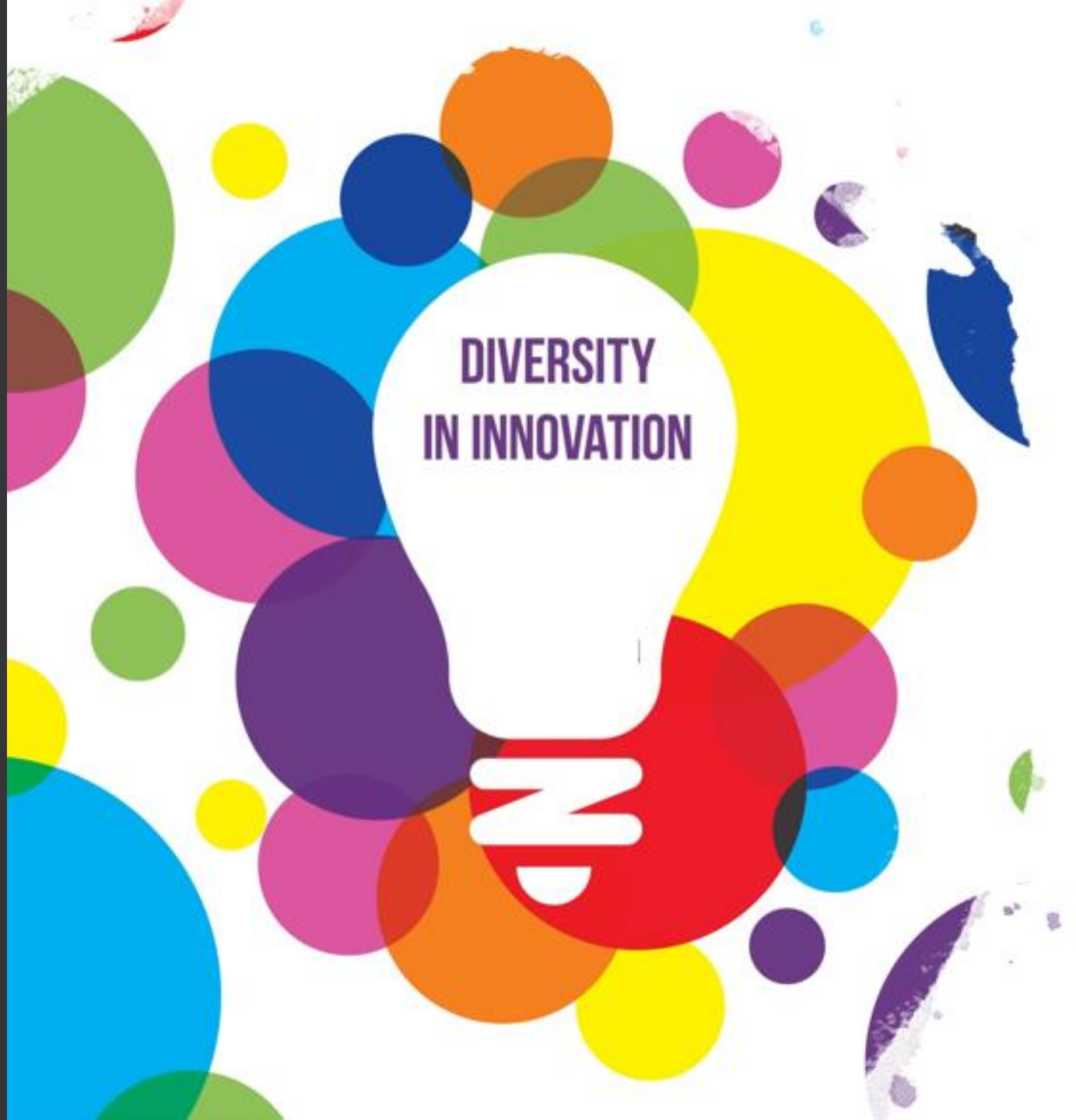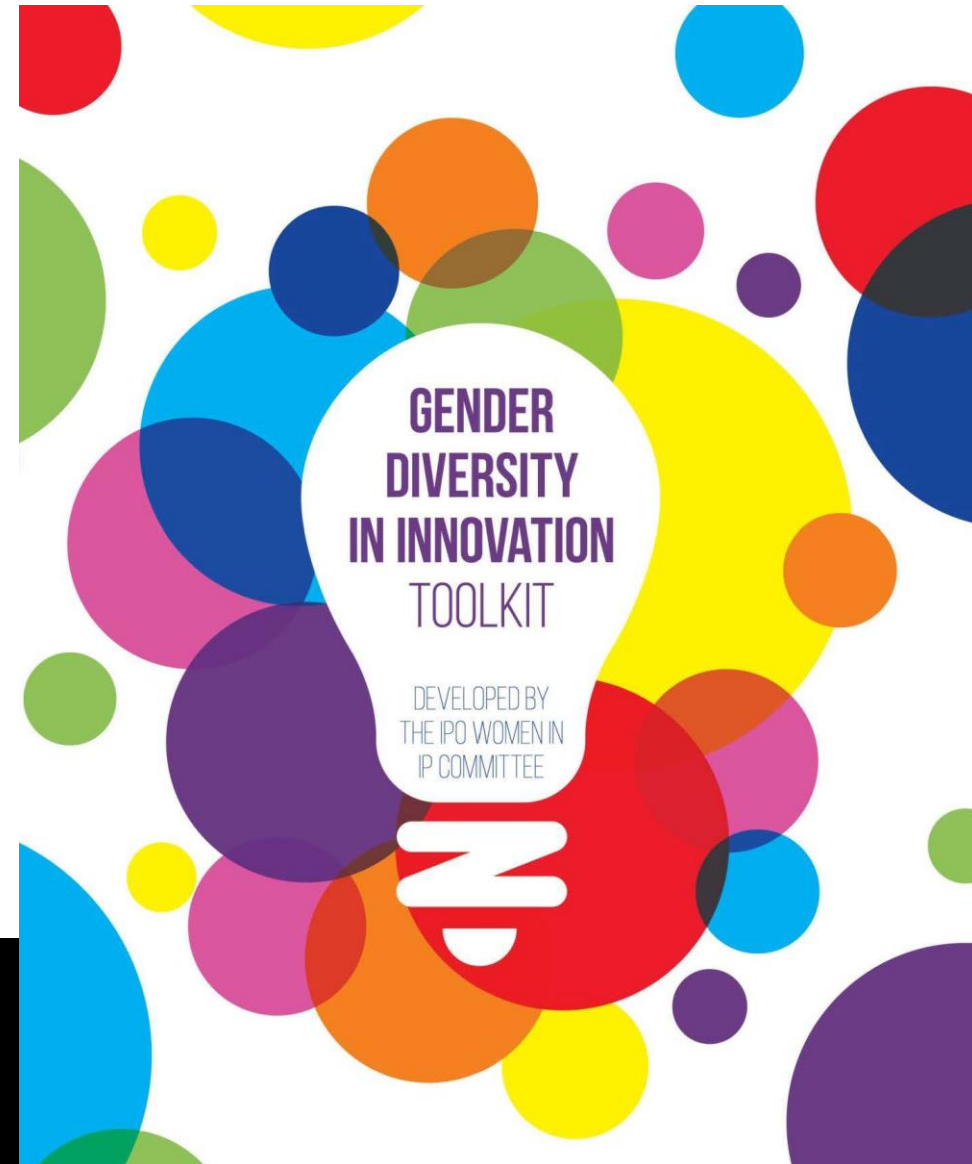Drive awareness and engagement to increase women inventorship

Julie Akhter, Senior Attorney
Intellectual Property Group
Corporate, External & Legal Affairs
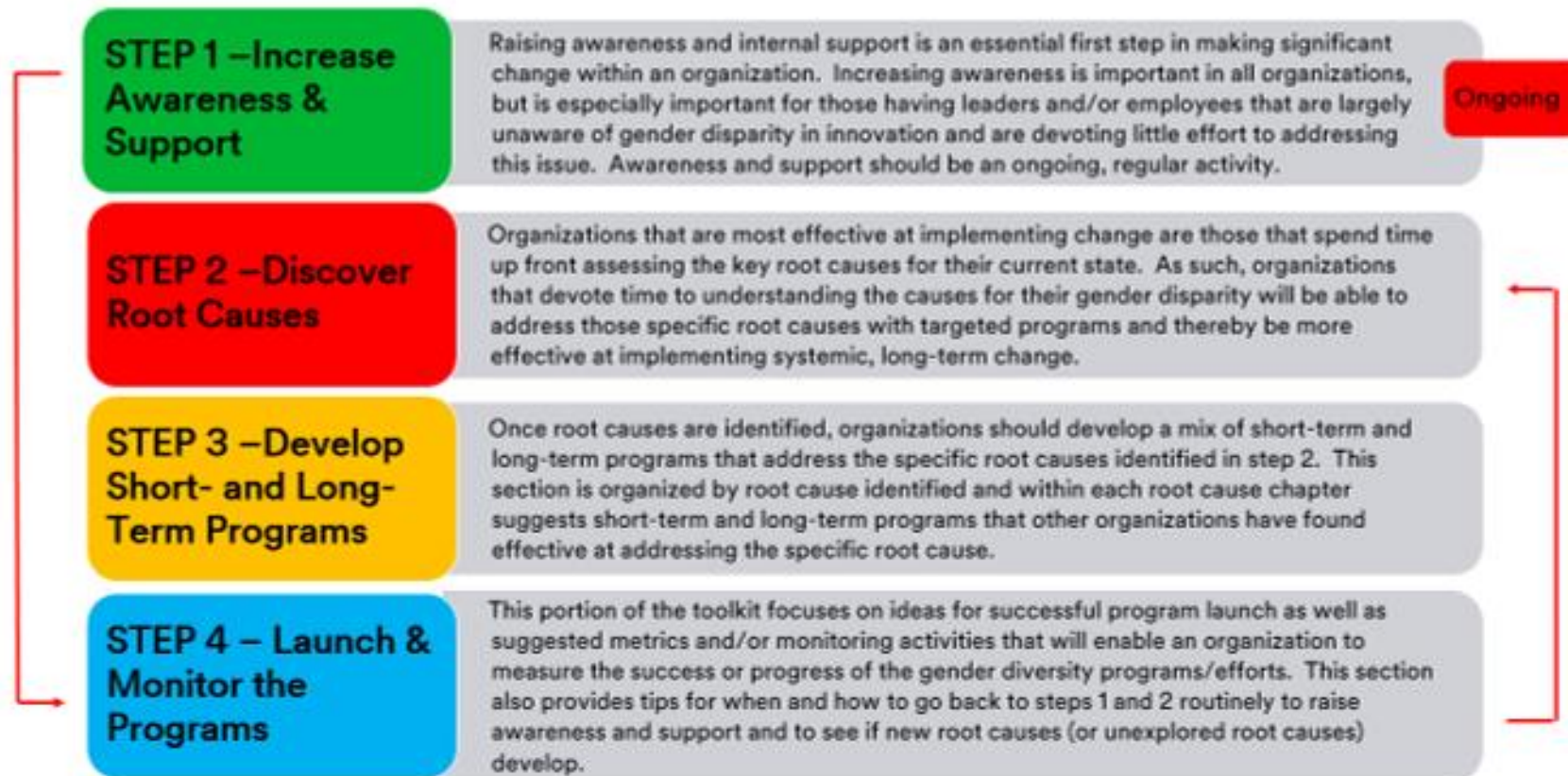Microsoft

DIVERSITY IN INNOVATION

IPO Toolkit: Key Features

- Toolkit is publicly available at www.ipo.org
- A systematic approach
- Sample surveys to help discover root causes
- Discusses many of the most commonly experienced root causes
- Many successful programs to combat those root causes
- Saves time – no need to recreate the wheel

# Gender Parity in Innovation 4-Part Cycle

Gender Parity in Innovation Process

STEP 1 – Increase Awareness & Support
Raising awareness and internal support is an essential first step in making significant change within an organization. Increasing awareness is important in all organizations, but is especially important for those having leaders and/or employees that are largely unaware of gender disparity in innovation and are devoting little effort to addressing this issue. Awareness and support should be an ongoing, regular activity.

Ongoing

STEP 2 – Discover Root Causes
Organizations that are most effective at implementing change are those that spend time up front assessing the key root causes for their current state. As such, organizations that devote time to understanding the causes for their gender disparity will be able to address those specific root causes with targeted programs and thereby be more effective at implementing systemic, long-term change.

STEP 3 – Develop Short- and Long-Term Programs
Once root causes are identified, organizations should develop a mix of short-term and long-term programs that address the specific root causes identified in step 2. This section is organized by root cause identified and within each root cause chapter suggests short-term and long-term programs that other organizations have found effective at addressing the specific root cause.

STEP 4 – Launch & Monitor the Programs
This portion of the toolkit focuses on ideas for successful program launch as well as suggested metrics and/or monitoring activities that will enable an organization to measure the success or progress of the gender diversity programs/efforts. This section also provides tips for when and how to go back to steps 1 and 2 routinely to raise awareness and support and to see if new root causes (or unexplored root causes) develop.

From the Sept 2019 Gender Diversity in Innovation Toolkit, developed by the IPO Women in IP Committee: https://ipo.org/wp-content/uploads/2019/09/GenderDiversitytoolkit-final.pdf
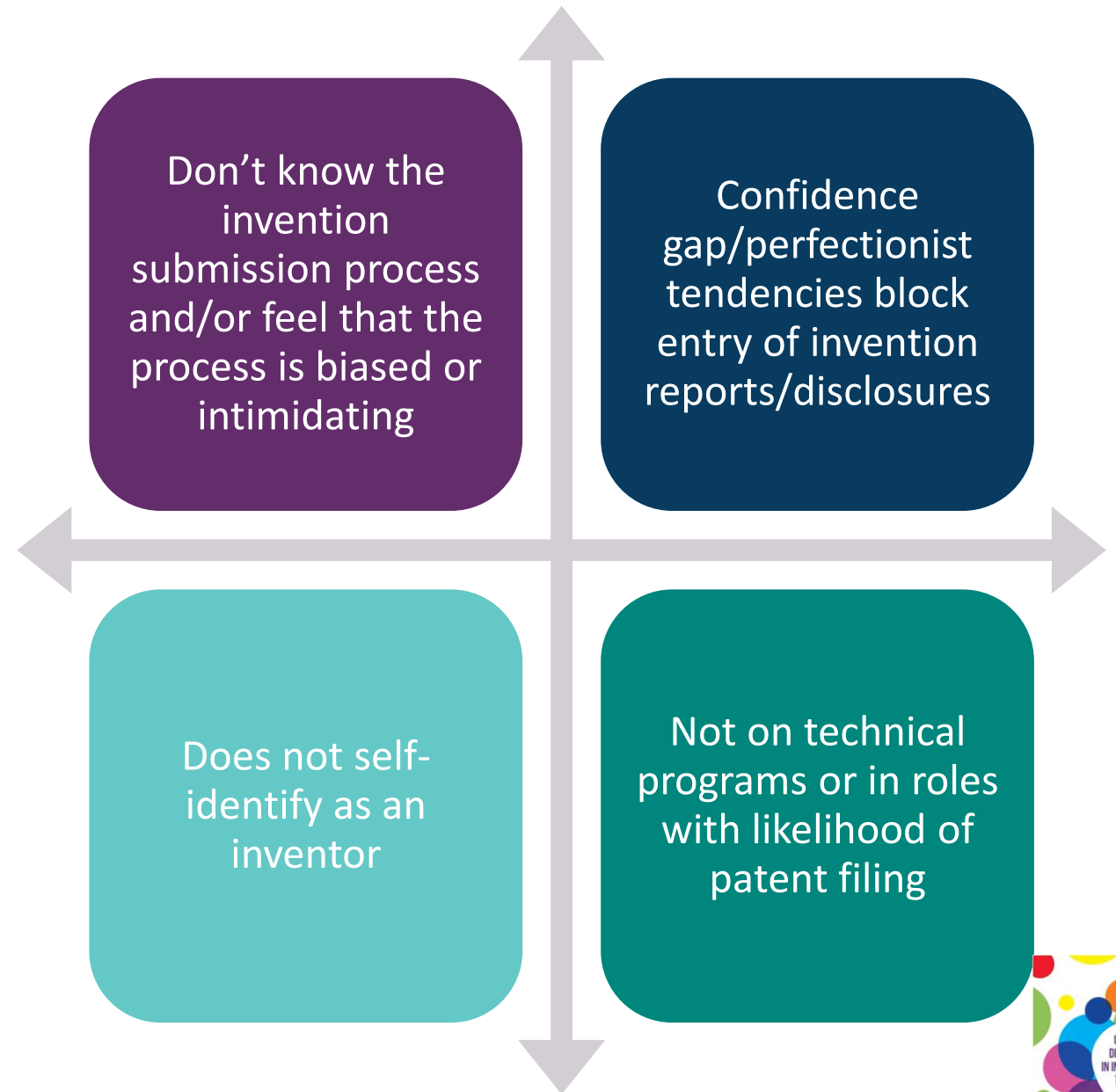
Assess your system

Evaluate your own data:

1. What percentage of your scientists/engineers are inventors?

2. What percentage are repeat inventors?

3. What percentage of your inventors are women or persons of color or LGBTQ?

4. Have some scientists/engineers fallen off the invention trajectory? Fallen silent?
   1. Reach out to those who have fallen silent
   2. Issues of silo-ism

5. Are some areas doing better than others in innovation by diverse members? Why? What are they getting right?
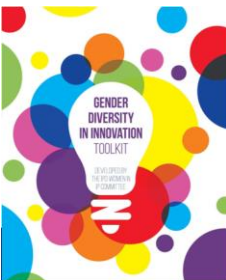
Some Common Reasons or Root Causes
Why Female Inventors Are Not Involved in Innovation/Patents

Don't know the invention submission process and/or feel that the process is biased or intimidating

Confidence gap/perfectionist tendencies block entry of invention reports/disclosures

Does not self-identify as an inventor

Not on technical programs or in roles with likelihood of patent filing

Invention Submission Process

Ideas:

1. Is there a standard process and is that process clearly articulated, communicated and followed?
2. How are new employees made aware of the process?
3. Are there female/diverse employees on the review committee?
4. Consider having patent attorneys speaking at affinity groups to introduce the process and discuss the issue of gender disparity
5. Communicate management support for invention submissions
6. Have visible celebration or recognition of patenting
7. Have employees who are approachable (mentors) ready to field questions about the process to reduce intimidation factor
8. Host patent attorney/patent champ office hours to increase access

Confidence Gap and/or Perfectionist Tendencies

Do not self-identify as an inventor

Ideas:

1. Mentoring and coaching on invention submission process

2. Start affinity groups for diverse technical employees

3. Management training / inclusion training

4. Management discussion of importance of patenting with employees

5. Visible celebrations of patent work (banquets, newsletters, group meetings)
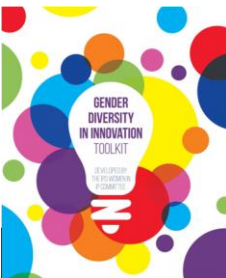
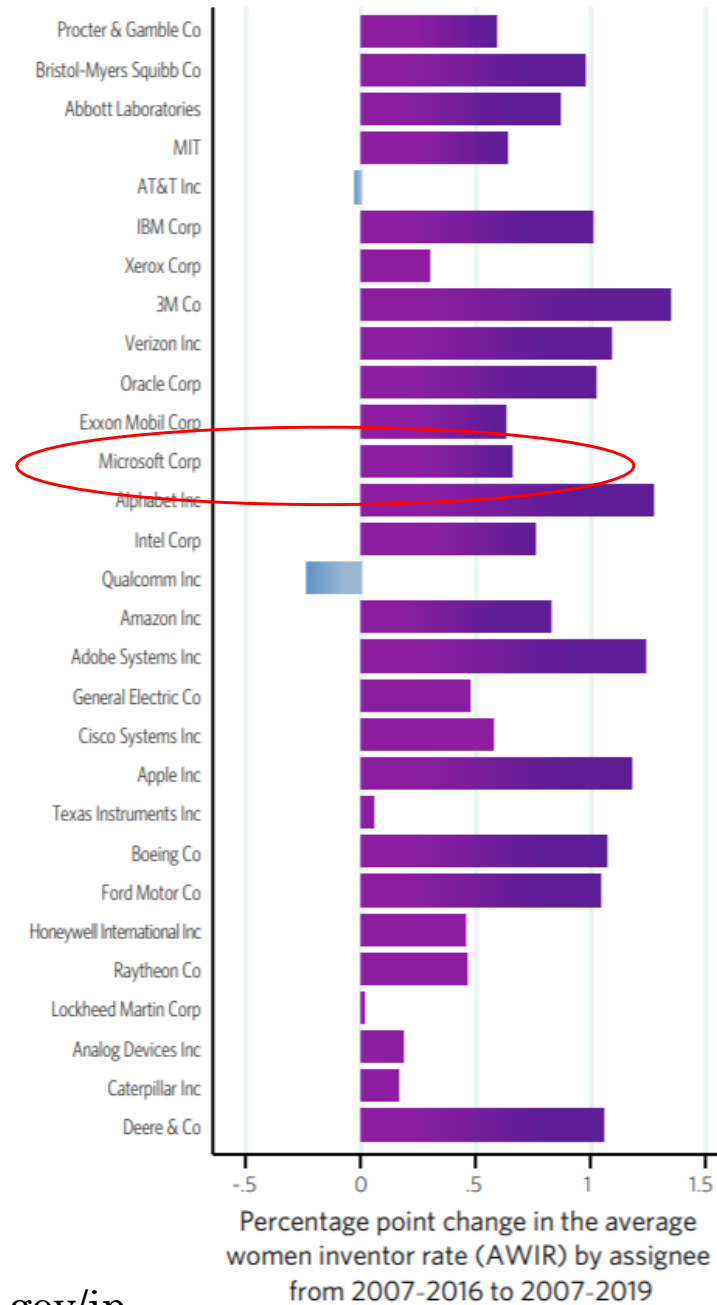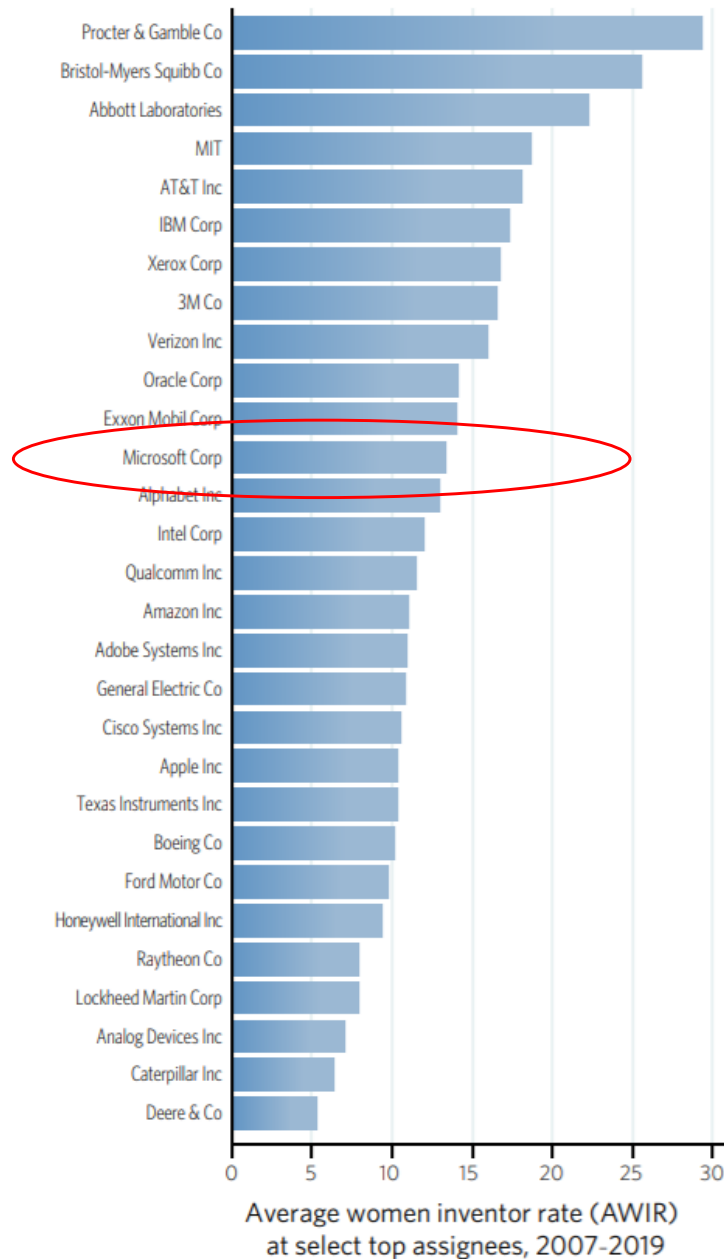6. Outside Counsel partnership and engagment
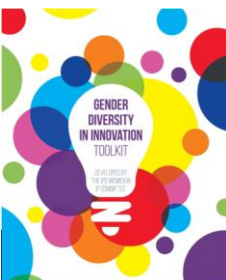
Not on Technical Programs with Likelihood of Patent Filings

Ideas:

1. Manager training and awareness to increase opportunities
2. Brainstorming innovation sessions
3. Sabbaticals / job sharing for technical employees

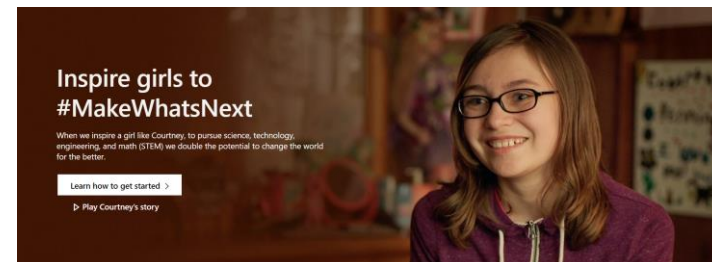13% of MSFT's US Patent Inventors From 2007-2019 were Female

Average women inventor rate (AWIR) at select top assignees, 2007-2019

Percentage point change in the average women inventor rate (AWIR) by assignee from 2007-2016 to 2007-2019

USPTO's Progress and Potential report: https://www.uspto.gov/ip-policy/economic-research/publications/reports/progress-potential

Raise Internal Awareness

- Presentations to IP groups
  - Raising awareness with IP professionals
  - Best practice training and sample decks provided

- Internal dashboards tracking data
  - Percent of women inventors by client group
  - Percent of women engineers by client group
  - Word cloud of top inventors

- Presentation to Outside Counsel
  - Raising awareness with our Outside Counsel partners
  - Requested active participation to ensure accurate inventorship and improved understanding of the patent process
  - Reaffirmed our commitment to staff cases with diverse teams

- Presentations client leadership

- A Culture of Inclusion
  - Trainings, resources, part of annual review of all employees
  - Reviewed IDF submission tool for any coded language/unconscious bias

Microsoft Programs

- Visibly celebrate inventors
  - Patent cubes upon filing; patent plaques upon issuance
  - Newsletters highlighting inventors

- Mentorship programs

- Presentations to client groups during all patent trainings

- Outreach to business' affinity groups to provide additional training and opportunities

- Partnerships with external organizations such as Grace Hopper, SHPE, NSBE, etc. to engage diverse inventors and encourage additional participation in the IP process

- Make What's Next program
  - Encouraging young women to pursue STEM, through donations, volunteer CS teaching programs, mentorships, and more
  - Includes a patent program to offer female inventors patent support and mentorship so they can protect their ideas and further their innovation

Inspire girls to
#MakeWhatsNext

When we inspire a girl like Courtney, to pursue science, technology, engineering, and math (STEM) we double the potential to change the world for the better.

Learn how to get started >

▷ Play Courtney's story

Ideas for the future

Public recognition of patenting activities with Leader/Manager support

Organization wide, on-going activities, such as emails, posts, presentations that focus on the research, patents, milestones, personal stories, etc. of women inventors and technologists

In addition to continuing to focus on objective data analysis, gather subjective data to better understand the root causes in each organization
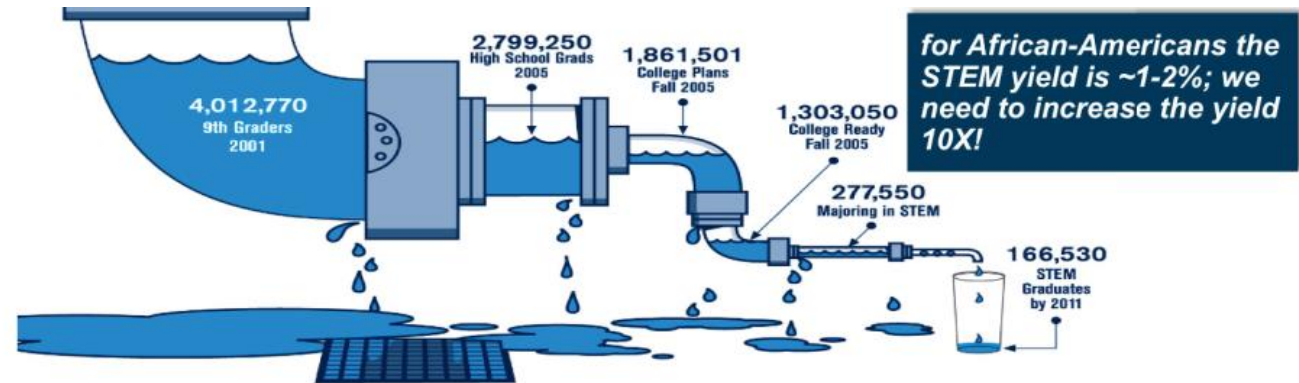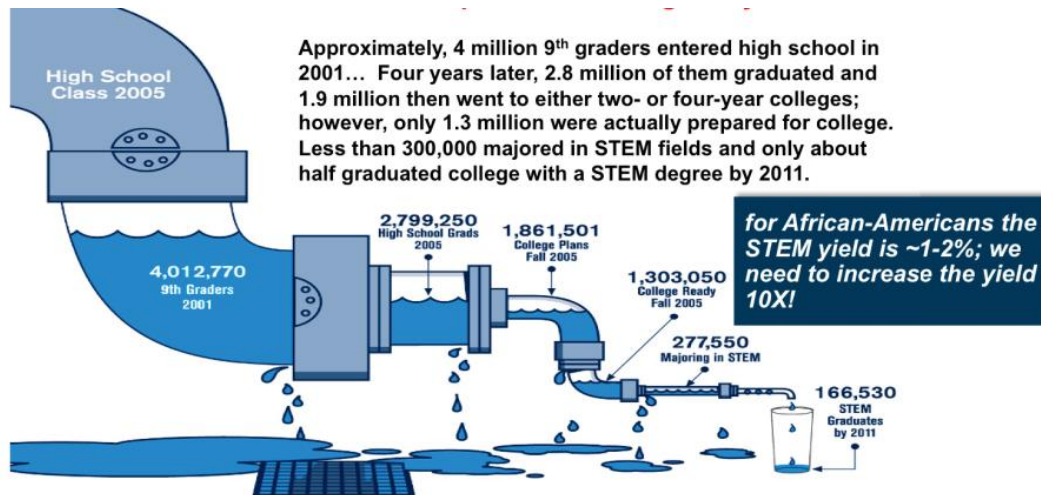
Team-specific women affinity group patent trainings

Measure percent of women inventors and report to leadership on a semi-annual basis

Appendix

Causes for the Disparity in Innovation

PIPELINE

LEAKY PIPELINE

LACK OF ENGAGEMENT

Approximately, 4 million 9th graders entered high school in 2001... Four years later, 2.8 million of them graduated and 1.9 million then went to either two- or four-year colleges; however, only 1.3 million were actually prepared for college. Less than 300,000 majored in STEM fields and only about half graduated college with a STEM degree by 2011.

High School Class 2005

4,012,770 9th Graders 2001

2,799,250 High School Grads 2005

1,861,501 College Plans Fall 2005

1,303,050 College Ready Fall 2005

277,550 Majoring in STEM

166,530 STEM Graduates by 2011

for African-Americans the STEM yield is ~1-2%; we need to increase the yield 10X!

Source: NCES Digest of Education Statistics; Science & Engineering Indicators 2008