

# The Hampton Roads Cybersecurity Education, Workforce, and Economic Development Alliance

HRCyber Kick-Off Meeting

October 17, 2016, 12:00-2:00

Perry Library Learning Commons, Old Dominion University, Norfolk



# Meeting Agenda

TIME	ITEM	PRESENTER
12:00-12:15	WELCOME AND LUNCH	Brian Payne
12:15-2:00	HRCYBER UPDATES	Brian Payne
	<ul style="list-style-type: none"><li>• Review mission, objective, and goals</li></ul>	
	<ul style="list-style-type: none"><li>• Review committee/subcommittee goals and identify members</li></ul>	Brian Payne
	<ul style="list-style-type: none"><li>• Review project timeline and key activities</li></ul>	
	<ul style="list-style-type: none"><li>• VSGC activities</li></ul>	Mary Sandy
	<ul style="list-style-type: none"><li>• Demonstrate HRCyber webpage</li></ul>	Wu He/Harris Wu
	<ul style="list-style-type: none"><li>• Discuss initial focus group results</li></ul>	Tancy Vandecar-Burdin
	<ul style="list-style-type: none"><li>• Open discussion – Logo Design</li></ul>	
	<ul style="list-style-type: none"><li>• Schedule next steering committee meeting</li></ul>	

# The Hampton Roads Cybersecurity Education, Workforce, and Economic Development Alliance

## HRCyber Mission

The Hampton Roads Cybersecurity Education, Workforce, and Economic Development Alliance (HR Cyber) is a collaborative partnership between educational institutions, government agencies, non-profit organizations, and private employers focused on developing educational pathways from high school, through community college, to four year institutions, and continual professional development, that provides a capable and fully trained cybersecurity workforce for the region.

## HRCyber Objective

HR Cyber will align regional educational and skills development offerings to the workforce practices and activities of business and non-profit organizations within the Hampton Roads region, with the specific goal of supporting local economic development and job growth via establishment of a multi-stakeholder Alliance. The Alliance will focus on leveraging the existing NICE Framework and its detailed taxonomy and cyber skills classification schema, addressing cyber workforce needs, training providers conforming to the NICE Framework, and increasing the pipeline of students pursuing cybersecurity careers.

## HRCyber Partners



# HRCyber Goals & Objectives

## **Goal 1: Coordinate educational pathways between public high schools (Virginia Beach and Newport News), community colleges (Tidewater Community College and Thomas Nelson Community College), and four year institutions (Old Dominion University and College of William and Mary)**

A central goal of this project is to coordinate cybersecurity educational pathways between those educational institutions participating in HRCyber. With this goal in mind, the members of the Coordinating Educational Pathways Subcommittee will engage in the following activities as part of this project:

- Meet monthly to review curricula and assignments.
- Use Lumina's degree qualifications profile (DQP) as a guide in determining how to ensure that appropriate knowledge units and skills are covered in different educational settings.
- Develop at least two articulation agreements between the community colleges and ODU.
- During the course of the project, the educational institutions will develop relationships with other institutions in the region, encouraging them to join the alliance and engage in the activities described above.

## **Goal 3: Coordinate academic programming between educational institutions and workforce.**

A third goal of this project is to improve the coordination of academic programming between educational institutions and the regional workforce in Hampton Roads. On one level, this includes developing stronger ties between each educational institution. On another level, this entails connecting the educational institutions (as a group) to the regional workforce.

- Develop a virtual laboratory that can be used by members of the regional alliance to educate students about cybersecurity.
- Provide training to academic advisors so they are aware of the strengths and needs of the educational institutions and the regional workforce.
- Develop a public portal identifying which cybersecurity courses are available and how they transfer between institutions.
- Early discussions between HRCyber alliance members from the educational institutions recognized the need for each institution to work collaboratively in developing its own strengths so that the varied cybersecurity needs of the Hampton Roads workforce are met. In other words, there is no need for every institution to do the "same thing" in the area of cybersecurity. Working together, the institutions can identify workforce gaps and determine which institution is best suited to address those gaps.

## **Goal 2: Gather information from the regional workforce about the knowledge units taught in cybersecurity programs and revise those curricula where needed.**

A second goal of HRCyber is to generate understanding about the types of knowledge cybersecurity professionals need in the Hampton Roads region across the broad swath of cybersecurity careers. To fulfill this goal, representatives from the alliance will engage in the following pursuits:

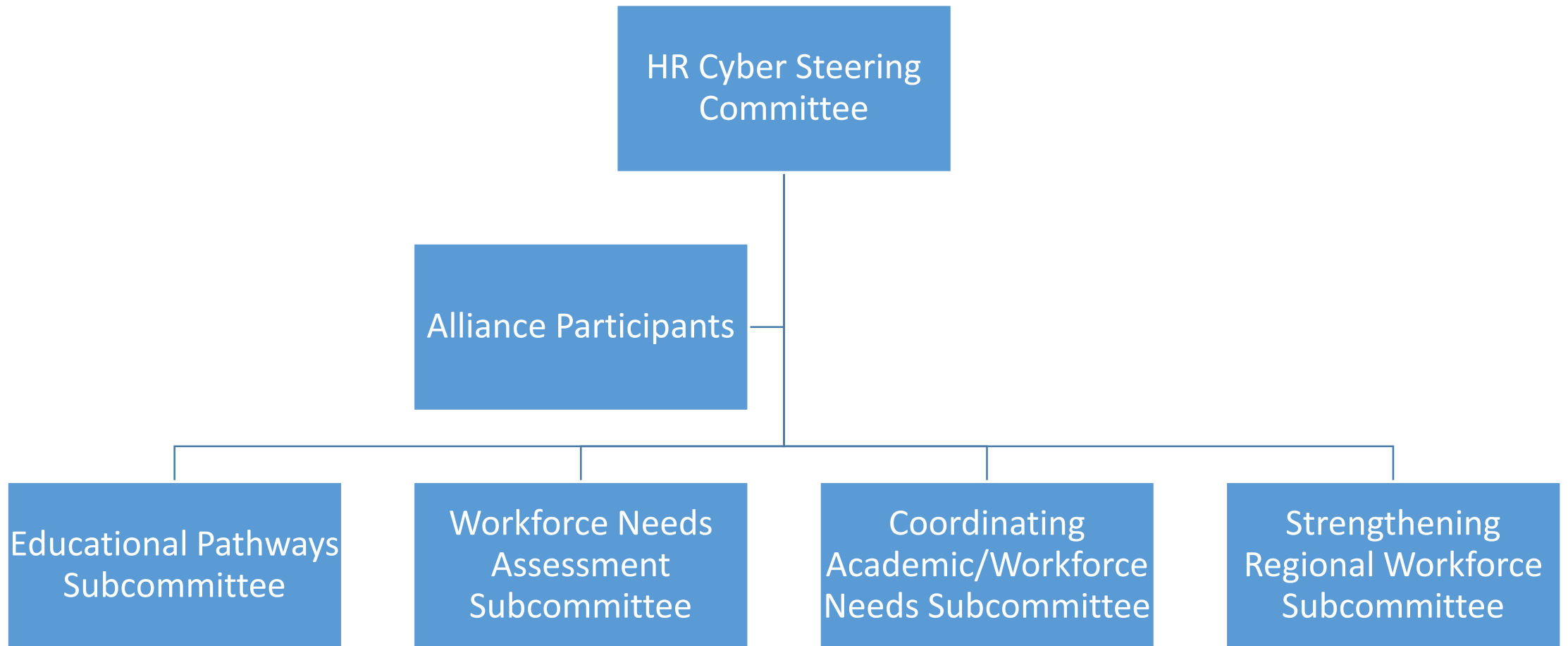
- Conduct two focus groups with employers to determine their views on cybersecurity knowledge units and required skills.
- Survey regional employers to assess their cybersecurity workforce needs.
- Solicit feedback from employers on current cybersecurity curricula.
- Use an occupational analysis (DACUM) to develop workforce-driven curricula
- The workplace assessment will be coordinated and conducted by the Old Dominion University Social Science Research Center. The information from this project will be used to inform the occupational analysis, which will be coordinated through the Virginia Space Grant Consortium.

## **Goal 4: Strengthen the cybersecurity capabilities of the regional workforce.**

A fourth goal of this project is to strengthen the cybersecurity capabilities of the regional workforce which includes a large complex of military bases, joint forces, federal facilities, and defense-related businesses, as well as healthcare companies.

- Provide interns and well-prepared employees to workforce partners in the alliance.
  - Up to 20 VBCPS high school students will be given cybersecurity internships.
  - VSGC will coordinate paid internship placement using the Commonwealth STEM industry internship program.
- Develop marketing material that shows which jobs are tied to different levels of education.
- Develop and produce four career awareness videos highlighting the range of available career opportunities, skills and interests needed, academic and career pathways and workforce demand in cyber security.
- Develop and offer a Cybersecurity Saturday Series for high school students and parents.
- Host a workforce development summit at Virginia Beach Higher Education Center for all employers and educators interested in cybersecurity in November 2017.
- Participate in regional cybersecurity summits and conferences.

# HR Cyber organizational structure



# Steering Committee

- Purpose. To provide oversight of HRCyber operations and subcommittees and to provide guidance to HRCyber Alliance partners.
- Membership. One representative from each of the HRCyber Alliance partners.
- Meetings. Meet monthly or at the discretion of the chair.

## Educational pathways subcommittee

- Purpose. To evaluate the curriculum of cyber security programs of partner educational institutions to determine skill gaps, areas of overlap, and to develop articulation agreements between member institutions.
- HR Cyber Goal 1. Coordinate educational pathways between public high schools (Virginia Beach), community colleges (Tidewater Community College and Thomas Nelson Community College), and four year institutions (Old Dominion University and College of William and Mary)
- Requirements/Activities.
  - Identify workforce gaps and determine which educational institution is best suited to address those gaps. Educational institutions need to work collaboratively in developing its own strengths so that the varied cybersecurity needs of the Hampton Roads workforce are met. In other words, there is no need for every institution to do the “same thing” in the area of cybersecurity.
  - Meet monthly to review curricula and assignments.
  - Develop at least two articulation agreements between the community colleges and ODU.
  - Use Lumina’s degree qualifications profile (DQP) as a guide in determining how to ensure that appropriate knowledge units and skills are covered in different educational settings.
  - Develop relationships with other institutions in the region, encouraging them to join the alliance and engage in the activities described above.

Membership. Representatives from each of the educational institutional partners.

Meetings. Monthly and at the discretion of the subcommittee chair.

## Workforce needs subcommittee

- Purpose. To evaluate and assess the cyber security workforce development requirements related to educational pathways.
- HR Cyber Goal 2. Gather information from the regional workforce about the knowledge units taught in cybersecurity programs and revise those curricula where needed.
- Requirements/Activities.
- Coordinate a workplace assessment through Old Dominion University Social Science Research Center. The information from this assessment will be used to inform the occupational analysis, which will be coordinated through the Virginia Space Grant Consortium.
  - Conduct two focus groups with employers to determine their views on cybersecurity knowledge units and required skills.
  - Survey regional employers using a “snowballing” sampling approach to assess their cybersecurity workforce needs.
  - Solicit feedback from employers on current cybersecurity curricula.
- Use an occupational analysis (DACUM) to develop workforce-driven curricula to update and define the skills, knowledge, and education requirements to be successful in the cyber security field.
- Membership. Representatives from each of the employer partners, City of Virginia Beach, Virginia Beach Vision, Reinvent Hampton Roads, Space Grant Consortium, ODU Social Science Research Center, ODU Center of Enterprise Innovation, ODU Career Development Services, and TCC Apprentice Institute.
- Meetings. At the discretion of the subcommittee chair.

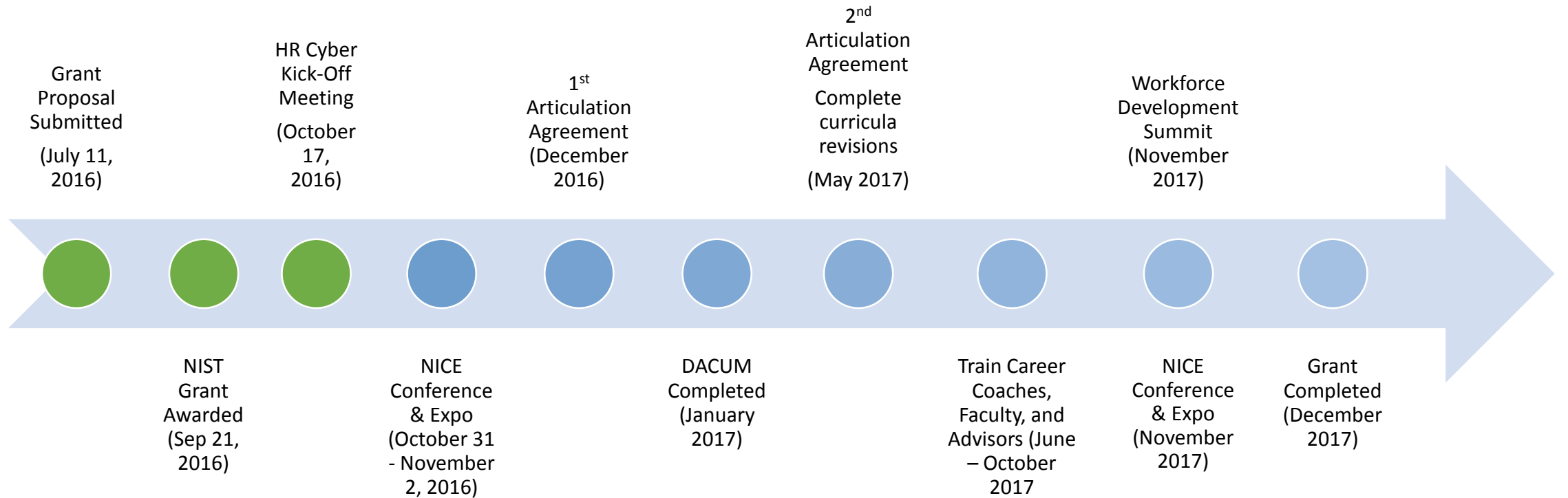
## Coordinating academic and workforce needs subcommittee

- Purpose. To review and evaluate the Educational Pathways and Workforce Needs subcommittees requirements to connect the workforce needs with academic programming.
- HR Cyber Goal 3. Coordinate academic programming between educational institutions and workforce.
- Requirements/Activities.
  - Develop a virtual laboratory that can be used by members of the regional alliance to educate students about cybersecurity with a capacity of 30 students.
  - Develop a public portal identifying which cyber security courses are available and how they transfer between institutions.
  - Provide training to academic advisors so they are aware of the strengths and needs of the educational institutions and the regional workforce.
  - Coordinate a one-day workshop for 25 high school counselors and career coaches from the regional school divisions to educate them about cyber security careers and educational pathways.
- Membership. Select representatives from the Educational Pathways and Workforce Needs subcommittees.
- Meetings. At the discretion of the subcommittee chair.

## Strengthening regional workforce subcommittee

- Purpose. To develop strategies to educate and train regional stakeholders in understanding and strengthening the cybersecurity capabilities of the workforce.
- HR Cyber Goal 4. Strengthen the cybersecurity capabilities of the regional workforce.
- Requirements/Activities.
  - Provide interns and well-prepared employees to workforce partners in the alliance.
  - Up to 20 VBCPS high school students will be given cybersecurity internships.
  - VSGC will coordinate paid internship placement using the Commonwealth STEM industry internship program.
  - Develop marketing material that shows which jobs are tied to different levels of education.
  - Develop and produce four career awareness videos highlighting the range of available career opportunities, skills and interests needed, academic and career pathways and workforce demand in cyber security.
  - Develop and offer a Cybersecurity Saturday Series for high school students and parents.
  - Host a workforce development summit at Virginia Beach Higher Education Center for all employers and educators interested in cybersecurity in November 2017.
  - Participate in regional cybersecurity summits and conferences.
- Membership. ODU Space Grant Consortium, ODU Social Science Research Center, Reinvent Hampton Roads, Cyber Protection Resources, Virginia Beach Vision, and select educational and employer partners.
- Meetings. At the discretion of the subcommittee chair.

# Project Timeline and Milestones





# Project Timeline and Milestones

Timeline	Activity	Objective			Assessment	
		Coordinate Educational Pathways	Revise Curricula Using Workforce Assessment	Coordinate Academic Programs w/ Workforce		Strengthen Regional Workforce
10/16 -1/18	Monthly alliance meetings	X	X	X	X	At least 80% of Alliance members attend
10/16	Focus groups		X	X		Completion of interview
10/16	Develop Website			X	X	Completion of website
11/16	Survey cybersecurity employers about workforce			X	X	Completion of at least 50 surveys by regional employers
12/16	First articulation agreement developed	X		X		Completion of articulation agreement
12/16	Career videos				X	Videos completed
1/17	DACUM completed		X		X	Completion of project
2/17	Identify curricula revisions	X		X		Identification of changes needed
2-3/17	Cyber Saturdays	X			X	At least 25 participants
3/17	Virtual lab created	X		X	X	Completion of lab
3/17	Internship partnerships created			X	X	At least five MOU for internships signed.

# Project Timeline and Milestones

Timeline	Activity	Objective			Assessment
		Coordinate Educational Pathways	Revise Curricula Using Workforce Assessment	Coordinate Academic Programs w/ Workforce	
5/17	Second articulation agreement developed	X		X	Completion of articulation agreement
5/17	Complete curricula revisions		X		Completion of curricula revisions
6/17	Train career coaches			X	Approximately 25 coaches will be trained
6/17	Participate in STEM Trifecta Challenge	X			Completion of challenge
7/17	Train professors on virtual lab	X		X	At least five professors will be trained
9/17	Assess curricula revisions	X	X		Assessment completed
10/17	Train college advisors about cybersecurity	X			At least 20 academic advisors will be trained
11/17	VB high school cyber interns completed				Up to 20 cyber interns complete internships
11/17	Workforce development summit at VB Higher Ed Cent.				At least 100 employers and representatives will attend.
12/17	Revise articulation agreement	X		X	Completion of articulation agreement for second year

# Virginia Space Grant Consortium Activities



- Cybersecurity Workforce Videos
- Counselors Workshop
- Cyber Saturdays
- Internships
- DACUM

# HR Cyber Webpage



## HRCyber Mission

The Hampton Roads Cybersecurity Education, Workforce and Economic Development Alliance (HRCyber) is a collaborative partnership between educational institutions, government agencies, non-profit organizations, and private employers focused on developing educational pathways from high school, through community college, to four year institutions, and continual professional development, that provides a capable and fully cybersecurity workforce for the region.

# Workforce Focus Group – Initial Results



# HR Cyber Logos – Option 1



# HR Cyber Logos – Option 2



# HR Cyber Logos – Option 3



Option 3 was selected during the meeting. But we will explore conducting an open design challenge over the next month.



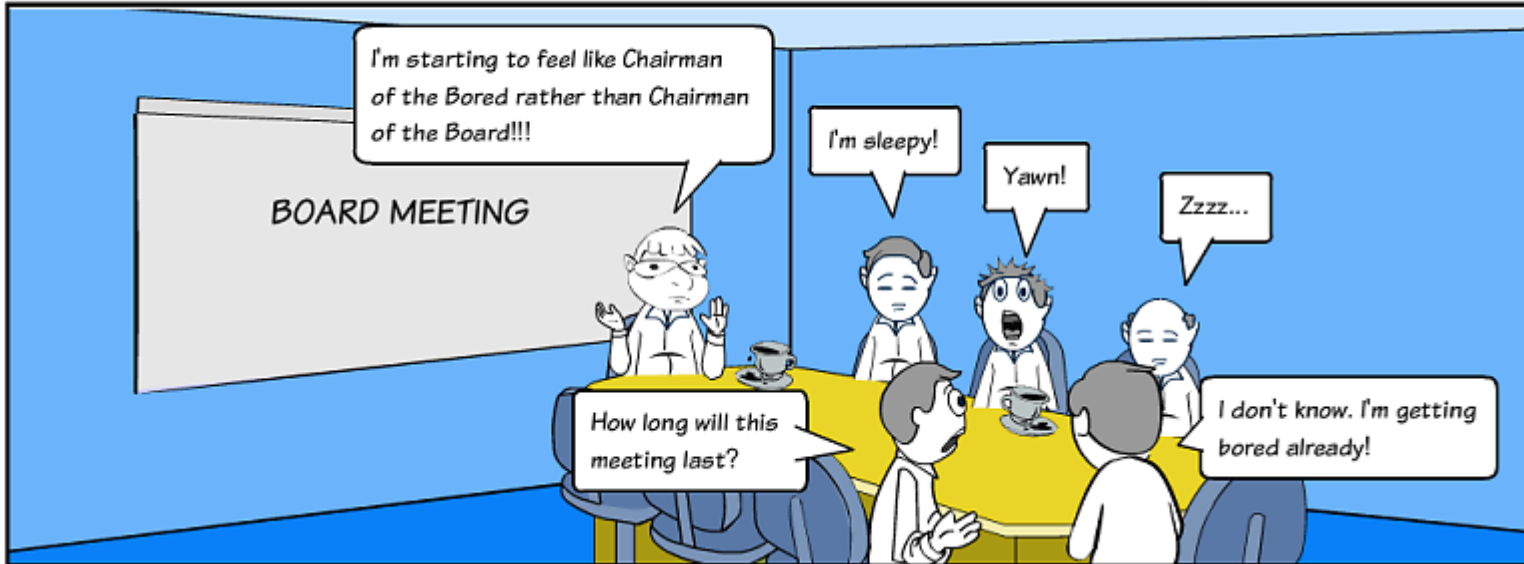
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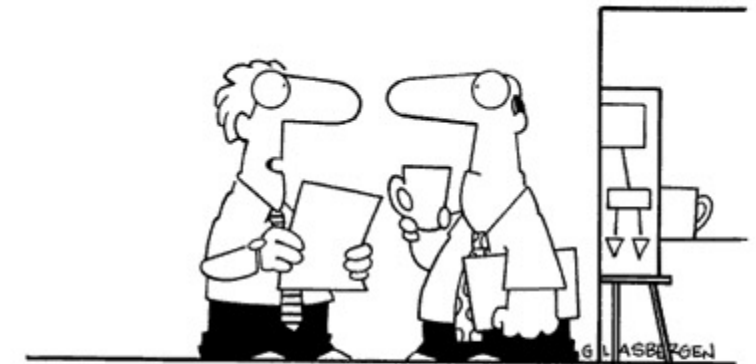
# Open Discussion

BOARD MEETING - BY MEERASAPRA

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# Next Meeting



**"Scientists say that coffee and donuts release chemicals into the brain that create the illusion that meetings are a productive way to get things done."**

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