

# **The Food Web of Information Systems in Higher Education**

F.M.M.U.G. 2024

Victor G Miranda

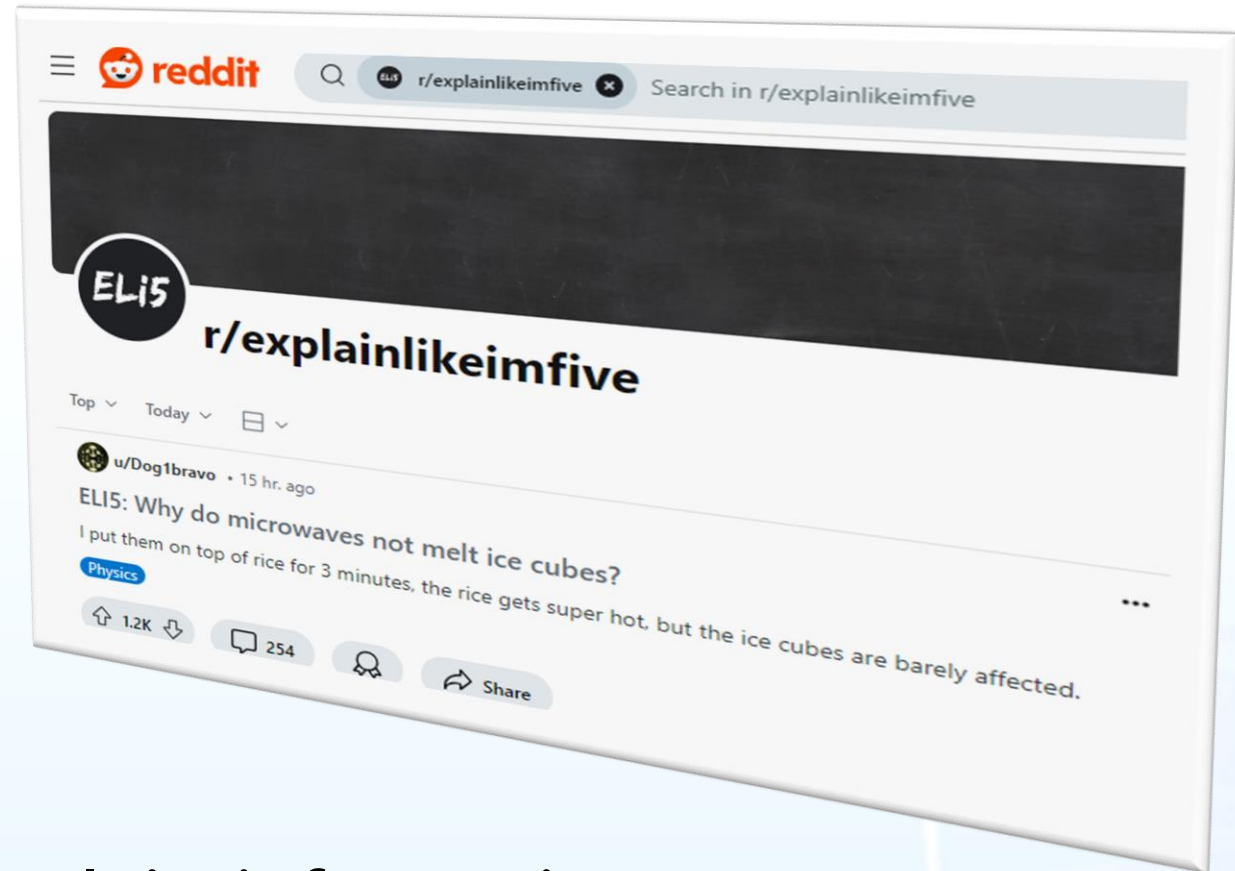
Johns Hopkins University

# Interview



How do you explain information systems  
to a non-technical audience, like a 5-year-old?

# Interview



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# Systems





# Food Chain

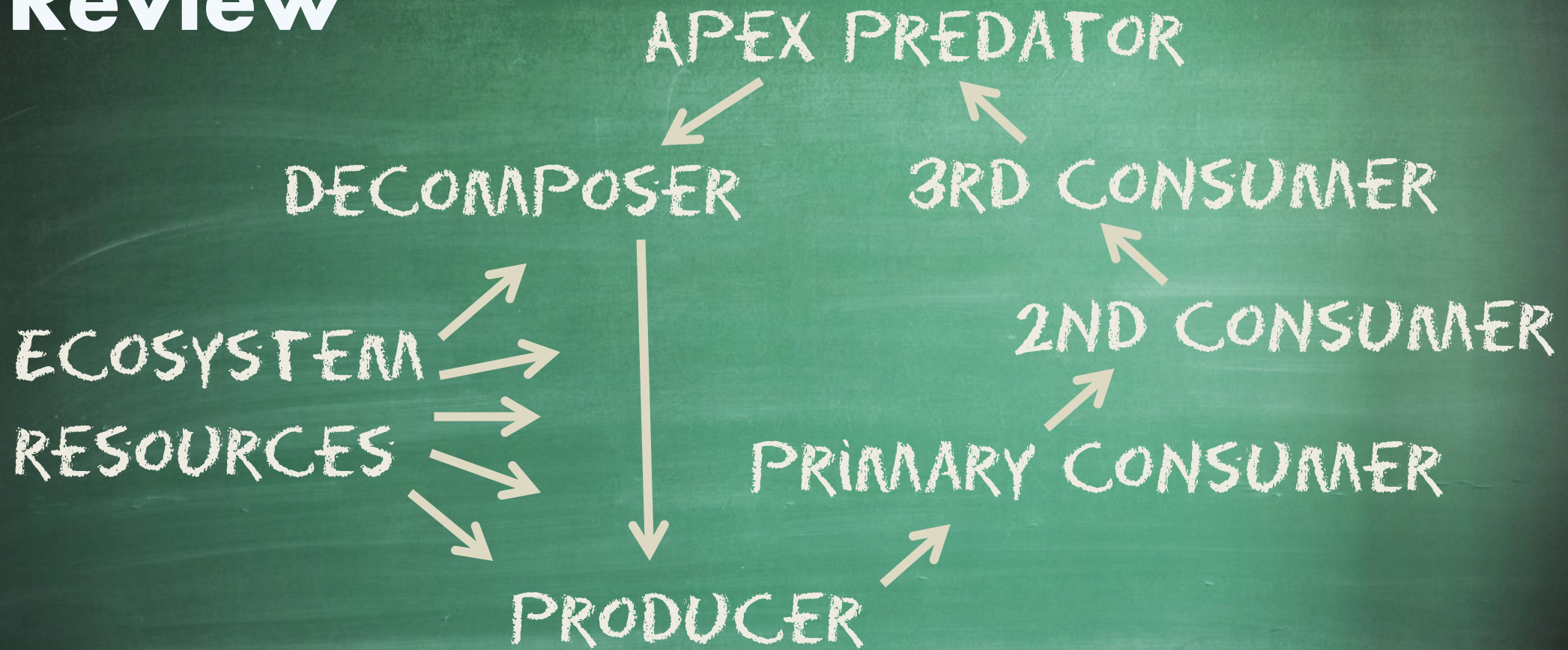


# Food Web





# Review



# Producers

- Data.
- Raw data sources.
- Data entry/creation.
- Sensors & measurements.

Electric meters for a building, measuring usage at many nodes.



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# Primary Consumers

- Data intake & storage.
- Data processing.

Energy management system, recording all measurements and all meters.





# Secondary Consumers

- Data analysis & insights.
- Data driven action.

CMMS/EAM, generating work orders and inspections in response to abnormal measurements.



Openart.ai



# Tertiary Consumers

- Data reporting.
- Strategic informing & decision making.

BI dashboards showing trends and KPIs related to maintenance.





# Apex Predators

- Long term data record.
- Data warehouse/lake.

Document repository for  
all historical records and  
data products.



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# Decomposers

- Migrations & upgrades.
- Refactoring & restructuring.
- Retrospectives & feedback loops.

Product lifecycle ends or is outcompeted, new product implemented.





# Ecosystem Resources

## Sun

- Energy.
- People.
- Money.



# Ecosystem Resources

## Water

- Infrastructure.
- Integrations.
- Mission.







JHFRE IT  
Drone Photo  
July 11, 2023  
5:26 am, DJI

# Johns Hopkins University Facilities & Real Estate

# Information Systems Team



Facilities & Real Estate  
Information Technology

# JHU-FRE Systems

R.E

D&C

P&A

Various

Trans

FacOps



AMTdirect

YARDI

CoStar™

MRI

B2G NOW

PMWeb®

ORACLE  
primavera

BLUEBEAM  
A NEMETSCHEK COMPANY

AUTODESK

SketchUp

miro

Revit

Rhino

OnBase  
by Hyland

S

Power BI

ARCHIBUS

VertiGIS

ArcGIS

T2 SYSTEMS  
A VERRA MOBILITY COMPANY

TransLōc

Parking technology HUB

Adapt

EZMaxMobile

EZRequest

IBM  
maximo

Schneider  
Electric

CLOCKWORKS  
ANALYTICS

ENERGYCAP

metasys  
Johnson  
Controls

SimpleK

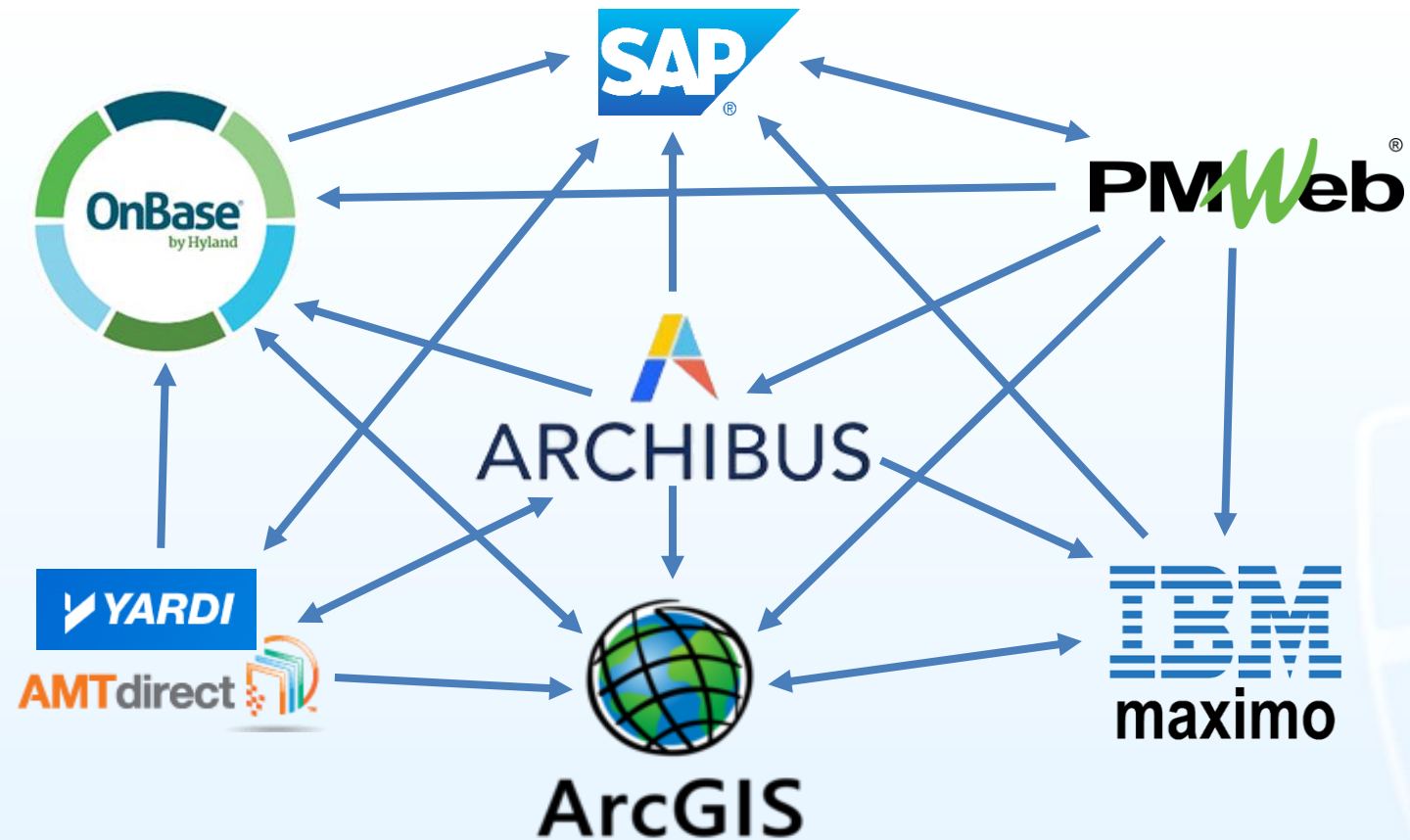
MicroMod  
AUTOMATION & CONTROLS

KeyTracer





# JHU-FRE Food Web

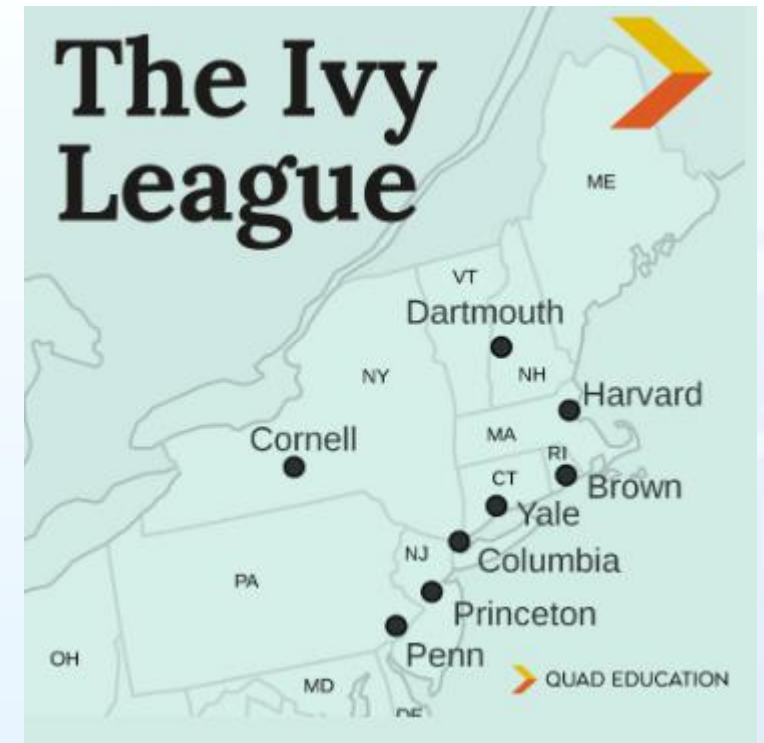


# What Is the Ivy League?

Surprisingly, the commencement of the Ivy League had nothing to do with academic excellence. The Ivy League is a collegiate athletic conference established in 1954 by the National Collegiate Athletic Association (NCAA) Division 1.

Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, Princeton University, University of Pennsylvania, and Yale University are the eight Northeast schools that make up the Ivy League.

School	Ranking	Acceptance Rate
<a href="#">Princeton</a>	#1	4.50%
<a href="#">Harvard</a>	#3	3.45%
<a href="#">Yale</a>	#5	4.50%
<a href="#">UPenn</a>	#6	5.86%
<a href="#">Brown</a>	#9	5.00%
<a href="#">Columbia</a>	#12	3.99%
<a href="#">Cornell</a>	#12	7.26%
<a href="#">Dartmouth</a>	#18	3.98%





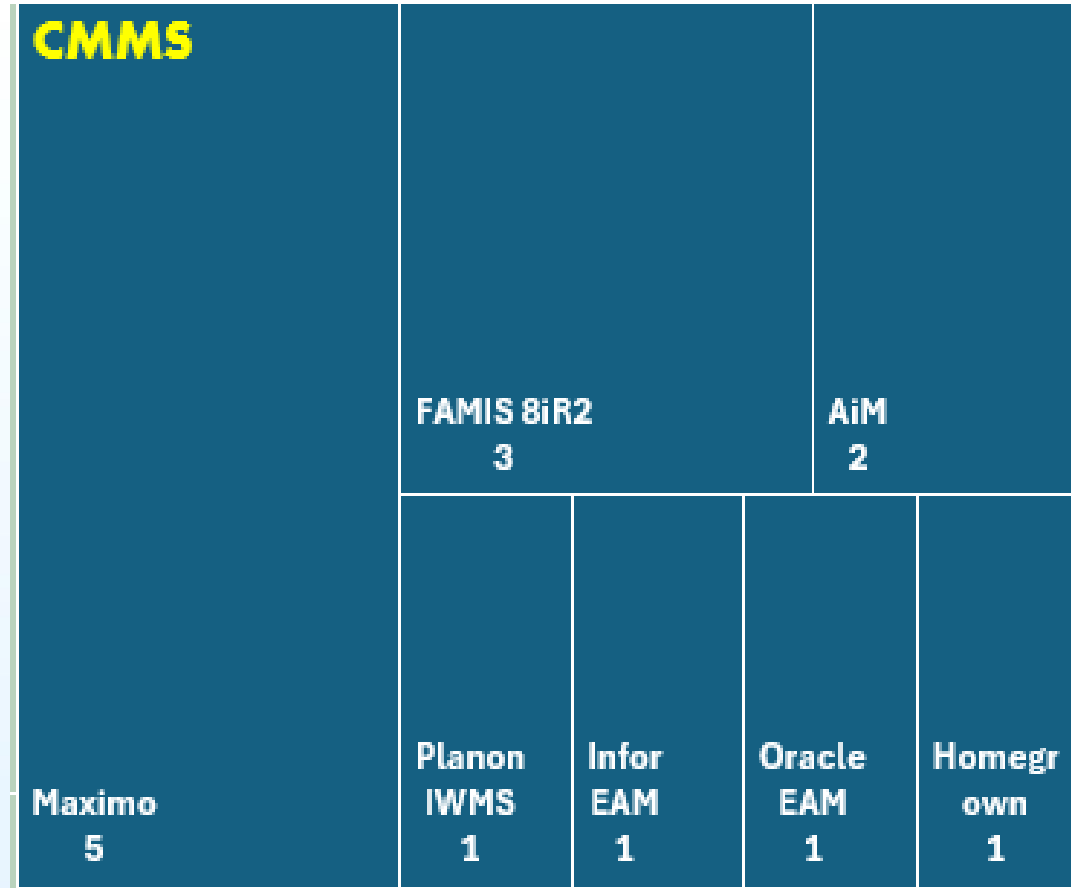
# Ivy Plus Schools:

College Name	Ranking	Acceptance Rate	Total Undergraduate Enrollment
<u>MIT</u>	#2	4%	4,657
<u>Stanford University</u>	#3	4%	8,049
<u>University of Chicago</u>	#12	5%	7,470
<u>Johns Hopkins University</u>	#9 (Tie)	7%	6,044
<u>Caltech</u>	#7 (Tie)	3%	982

**An Ivy Plus school is any university or college that is not Ivy League, consistently top ranking, and not a liberal arts school.** They typically exist as well-known private institutions. Ultimately, the category includes non-Ivy schools that offer Ivy-level education, making them great choices!

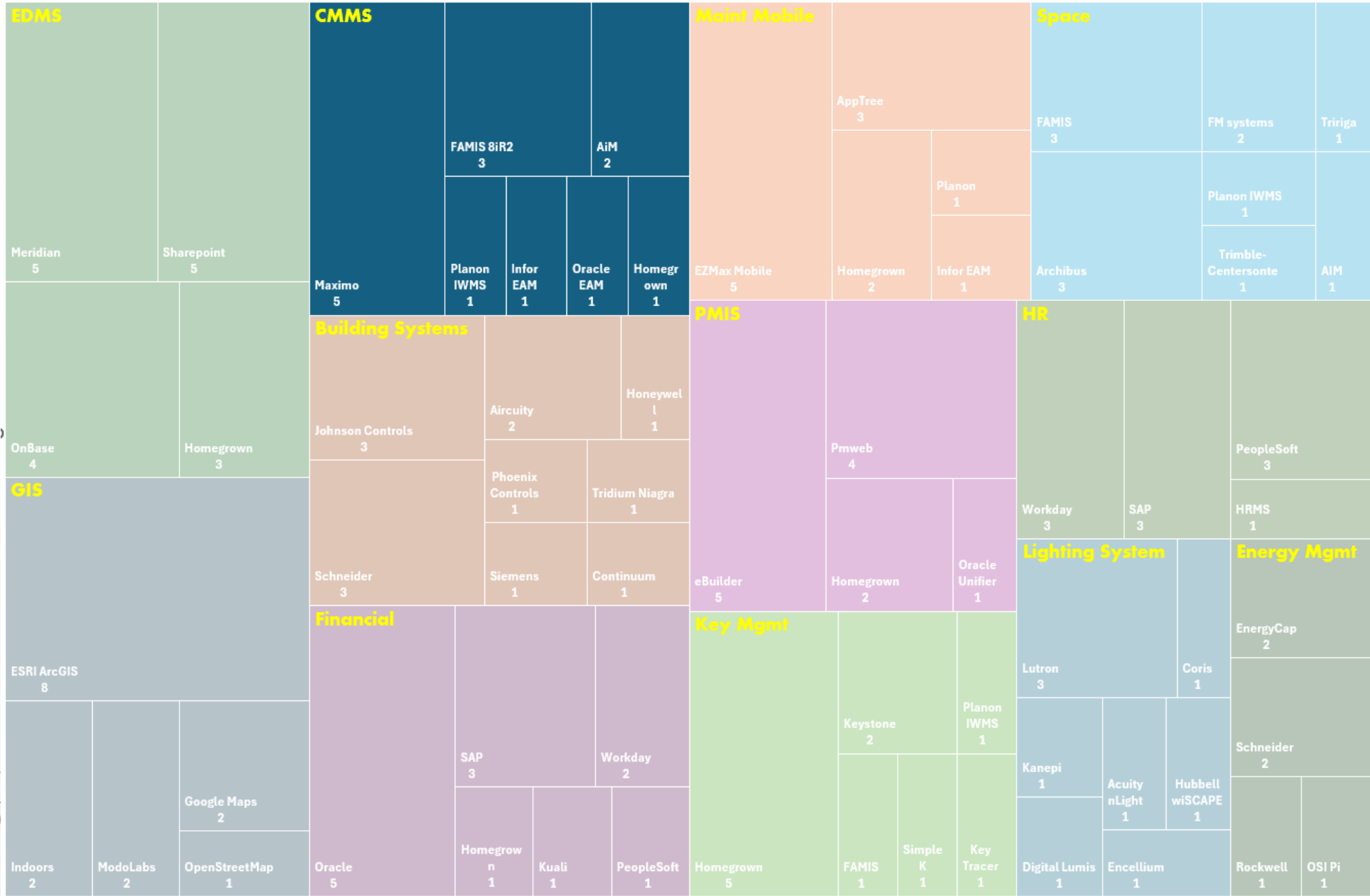
<u>Duke University</u>	#7 (Tie)	6%	6,640
<u>Northwestern University</u>	#9 (Tie)	7%	8,659
<u>Vanderbilt University</u>	#18	7%	7,151
<u>Rice University</u>	#17	9%	4,494
<u>WashU in St. Louis</u>	#24	11%	8,132

# Species Abundance

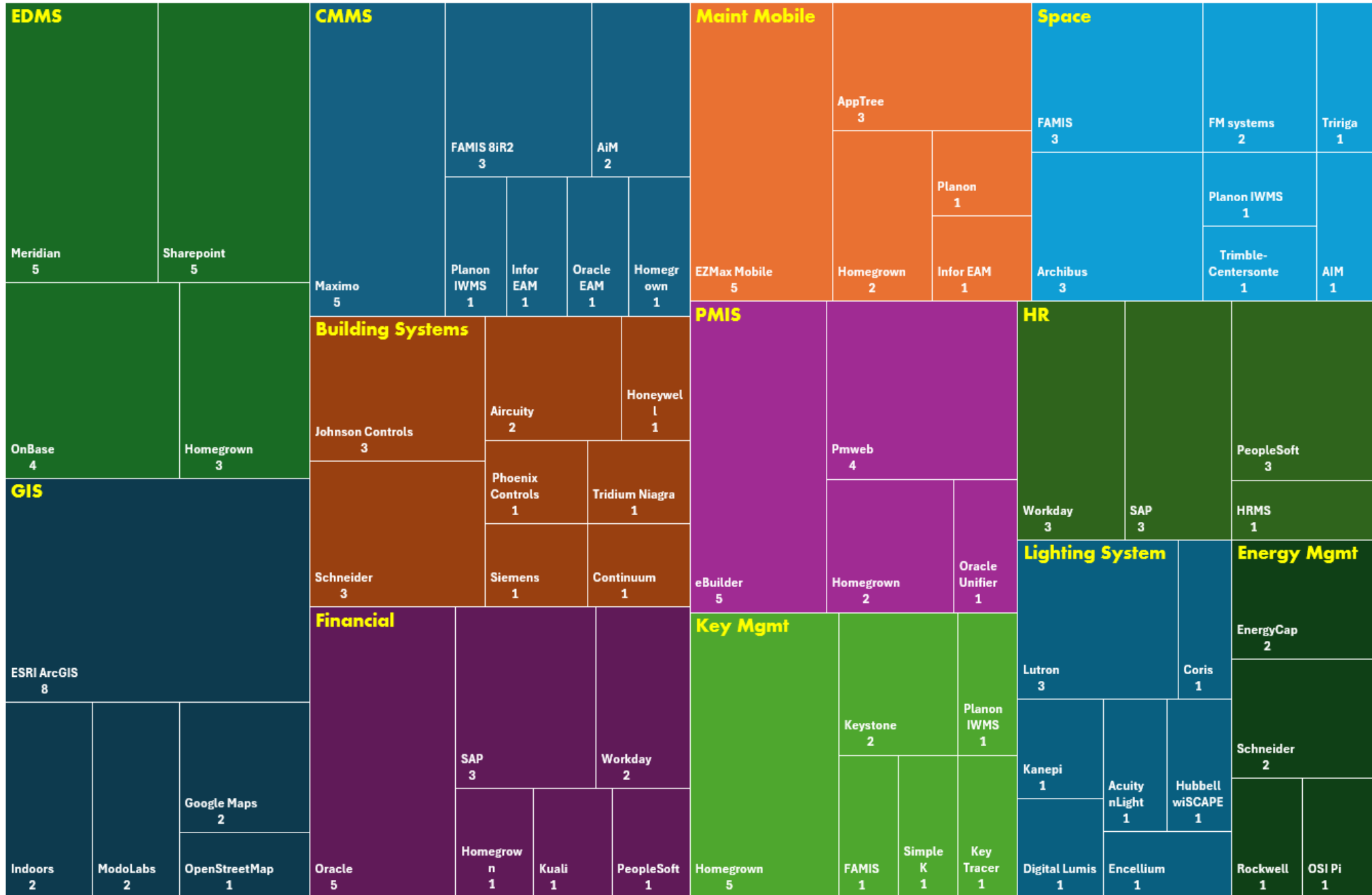




# IVY PLUS FM SYSTEM SURVEY 2023



# IVY PLUS FM SYSTEM SURVEY 2023





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