STAR METRICS: Phase I

Science and Technology for America's Reinvestment: Measuring the EffecTs of Research on Innovation, Competitiveness and Science

About Star Metrics

STAR METRICS (Science and Technology for America's Reinvestment: Measuring the EffecTs of Research on Innovation, Competitiveness and Science): a university partnership to document the outcomes of science investments to the public.

- Phase I: Uniform, auditable and standardized measures of the initial impact of ARRA science spending on job creation.
- Phase II: Collaborative development of measures of the impact of federal science investment on:
 - economic growth (through patents, firm start ups and other measures),
 - workforce outcomes (through student mobility and employment),
 - scientific knowledge (such as publications and citations) and, later,
 - social outcomes (such as health and environment)

The Approach – "Keeping it Simple"

Academic Grantee Institutions



Federal S&T Funding Agencies

STAR METRICS utilizes existing university administrative records and match them with existing federal and research databases to produce standardized reports on jobs, economic, scientific and social outcomes.

What's Needed: Phase 1 - Star Metrics

14 administrative data elements from your awards, grants, HR or finance systems that you provide to STAR Metrics on a quarterly basis...

- Award data
- Payroll Staff Information
- Non-Payroll Charges
- Sub-awards
- Indirect Cost Rate Proposal

...will yield these University Quarterly pre-calculated reports...

- Stimulus FTE Jobs (ARRA) with and without Overhead Job calculations
- FTE Jobs and Positions All awards (with and without Overhead)
- **FTE Sub-awards** All awards (with and without Overhead)
- Vendor FTE's (Jobs) All awards
- Overhead Jobs (calculated from Indirect Costs)

Star Metrics Phase 1 – 14 Required Data Elements

Description	Element ID	Item	Data Source	Unit of Analysis	Purpose	
	1	De-identified Employee ID #		Individual		
	2	Federal Award ID #		Award		
	3	University Award ID #		Award		
Information on Scientists and Awards	4	Overhead rate charged	University	Award	Job Metrics	
	5	Occupational Classification	1	Individual		
	6	Proportion of time allocated to award		Individual		
	7	FTE status		Individual		
Information on Overhead	8	Indirect Cost Rate Proposal	University	University	Job Metrics	
	2	Federal Award ID #		Award		
Doumonts to vendors	9	University Award ID #	University	Award	Secondary	
Payments to vendors	10	Duns #	University	Vendor	Impact	
	11	Amount of Contract		Vendor		
	2	Federal Award ID #		Award		
Subcontracts and subawards	12	University Award ID #	University	Award	Secondary Economic Impact	
Subcontracts and subawards	13	Duns #	University	Subcontractor		
	14	Amount of Contract		Subcontractor		

Getting Us the Data

- <u>Phase 1 Data Dictionary Template</u>
 - Identify fields required
 - Map to Star Metrics Template
- Identify best method(s) for extraction and upload (considering what you already have automated for reporting)
 - XML, CSV, or Excel files
- Post the 1st data pull, we will work with you to operationalize this on quarterly basis

Example of Federal Award ID file

Federal Award ID #	De-identified Employee ID #	University Award ID #	Overhead Charged	Occupational Classification	Prop. time allocated to award	FTE status	Period
aaa-1234567	Empid1234567	NIH-aaa-1234567	\$222,340	Administrative Assistant I	0.25	1	05/15- 05/30
aaa-1234567	Empid2345678	NIH-aaa-1234567	\$222,340	Staff Associate	0.1	1	05/15- 05/30
aaa-1234567	Empid3456789	NIH-aaa-1234567	\$222,340	Technical Assistant II	0.4	0.5	05/15- 05/30
aaa-1234567	Empid4567890	NIH-aaa-1234567	\$222,340	Technical Support Specialist	0.33	0.5	05/15- 05/30
aaa-1234567	Empid5678901	NIH-aaa-1234567	\$222,340	Post Doc	0.5	1	05/15- 05/30
aaa-1234567	Empid6789012	NIH-aaa-1234567	\$222,340	Assistant Professor	0.1	1	05/15- 05/30

SubContract ID File

Federal Award ID #	University Award ID #	Duns Number	Amount Disbursed	Period
aaa-1234567	NIH-aaa-1234567	1111111	\$222,340	05/15-05/30
aaa-2345678	NSF-aaa-2345678	2222222	\$1,234,567	05/15-05/30

Vendor ID File

Federal Award ID #	University Award ID #	Duns Number	Amount Disbursed	Period
aaa-1234567	NIH-aaa-1234567	1111111	\$222,340	05/15-05/30
aaa-2345678	NSF-aaa-2345678	2222222	\$1,234,567	05/15-05/30

Gap Example I below- Mapping Existing University XML Code for ARRA

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xmlns:recoveryrr=" xsi:schemalocation="urn:us:gov:recoveryrr recoveryrr-xc.xsd"></recoveryrr:grantloanreport>	http://niem.gov/niem/niem-core/2.0" x	mlns:xsi="http://www.w3.org	z/2001/XMLSchema-instance"
< <u>CGrantLoanReportHeader></u> <primerecipientduns>094878337</primerecipientduns>	\rightarrow	Element 2	
<awardl dnumber="">R01HL085572</awardl> <grantloanawardcategory>Grant</grantloanawardcategory> - <grantloanprimerecipientreport> -<grantloanawarddetail> <fundingagencycode>7529</fundingagencycode> <awardingagencycode>7529 <finalreportindicator>N</finalreportindicator> -<completetreasuryaccountsymbol> <treasuryaccountsymbol>75-0871</treasuryaccountsymbol></completetreasuryaccountsymbol></awardingagencycode></grantloanawarddetail></grantloanprimerecipientreport>			
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<a>AccountNumber>A112523 AccountNumber> CompensatedOfficerIndicator>No /PrimeRecipient>9/2010	STAR METRICS	Element 3	10

Phase I Reports

FTE Jobs and Positions

Funding Source	unding Source Total		Fac	Faculty		Undergrad Student		Admin		Post Grad		tudent	Technical Support	
	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period
Federal Non- Science	529	9.3%	21.4	-24.5%	0.5	58.6%	26.0	37.4%	86.8	45.3%	154.0	29.0%	219.3	-8.8%
Federal Non- Science Stimulus	47	-17.6%	13.8	11.0%	1.5	20.4%	2.3	0.0%	3.3	16.8%	5.2	-57.4%	7.3	75.4%
Federal Science	1,203	13.6%	1.5	-50.0%	110.8	19.1%	3.8	-50.0%	325.2	18.2%	485.7	11.9%	274.4	12.5%
Federal Science Stimulus	195	48.2%	10.7	-100.0%	30.6	57.6%	-		49.3	62.2%	58.7	59.3%	34.7	23.8%
Other	22,344	1.8%	1,592.6	1.8%	401.7	751.8%	0.8	-50.0%	1,244.4	-1.8%	4,683.6	-4.5%	12,828.6	1.9%
Total	24,059	2.7%	1,597.5	1.6%	402.2	752.8%	1.1	-46.0%	1,709.0	4.5%	5,387.2	-2.2%	13,364.3	2.0%

	Field	How Derived
	Funding Source	Derived from available agency data or CFDA code
	Current period (Positions Created / Retained)	The number of unique individuals who have applied time to the funding source awards during the reporting period
	% Chg from prior period (Positions Created / Retained)	The percentage change in the number of positions from the prior reporting period - ((Current Period - Prior Period) / Prior Period))
	FTE Equivalents	The sum of the proportion of time expended by each individual associated with awards in funding source during the reporting period
	% Chg from prior period (FTE equivalents	The percentage change in the number of FTE Equivalents from the prior reporting period - ((Current Period - Prior Period) / Prior Period))
5/	Occupational Classification	Translation of the university occupational classifications into a standard set of classifications. A translation table is created perturiversity.

Stimulus FTE Jobs

Award ID	Total (incl. Overhead)	Overhead	Total ARRA	Faculty	Undergrad	Admin	Post Grad Student	Grad Student	Technical Support	Vendor	Sub Awards
ARRA- CFDA derived	266.6	44.1	222.6	11.4	17.2	25.2	48.5	54.2	3.6	21.9	40.5
Award-01	1.4	0.3	1.2		0.1	0.2		0.4		0.1	0.3
Award-02	1.2	0.1	1.2	0.8				0.3		0.0	0.0
Award-03	0.5	0.1	0.4					0.3		0.0	0.1
Award-04	1.9	0.3	1.6	0.2			0.7	0.2		0.2	0.3

Field	How Derived
Stimulus	Derived from available agency data or CFDA code
Award ID	Collected from the university grants system
FTE Equivalents	The sum of the FTEs calculated from all four sources (Individuls, Overhead, Vendors, Sub Awards) for each award. Information on the specific calculations for each of the sources are located in the appropriate sections.
Occupational Classification	Translation of the university occupational classifications into a standard set of classifications. A translation table is created per university.
Stimulus	Derived from available agency data or CFDA code
Award ID	Collected from the university grants system

Vendors' FTE Jobs and Industries

Funding Source	g TOTAL All Industries		Accommodation and Food Services		Administrative and Support and Waste Manage		Arts, Entertainment, and Recreation		Construction		Educational Services		Health Care and Social Assistance	
	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period
Federal Non- Science	56.6	-19.2%	2.0	-14.0%	2.6	78.6%	2.0	-16.2%	1.1	33.1%	3.5	165.1%	2.0	166.2%
Frederal Non- Science Stimulus	3.1	-32.3%	0.2	77.2%	0.1	32.5%	0.3	414.2%	0.1	29.8%	0.1	-33.3%	0.1	504.8%
Federal Science	157.3	-22.2%	7.6	17.9%	4.9	24.6%	6.3	22.6%	2.9	21.0%	5.2	12.5%	3.4	55.3%
Federal Science Stimulus	21.2	-26.7%	0.3	-73.2%	1.4	132.8%	0.1	-70.4%	0.5	380.6%	1.3	-21.1%	0.7	34.4%
Other	179.4	-4.8%	6.6	280.1%	11.2	818.4%	7.1	-45.1%	6.2	142.8%	8.0	17.7%	4.2	2398.4%
Total	417.6	-14.6%	16.6	44.3%	20.2	176.6%	15.8	-24.6%	10.8	81.6%	18.1	24.8%	10.4	

Field	How Derived
Funding Source	Derived from available agency data or CFDA code
FTE Equivalents	Uses the DUNS industry based on the DUNS number for the Vendor, DUNS lookup comes fromTBD (simulated data used for above report)
% Chg from prior period (FTE equivalents	The total dollars paid to the Vendor recipient during the reporting period as supplied by the reporting university
Questions or Issues	Based on calculating the average quarterly salary for an employee by NAICS by county and calculating the payroll to sales ratio by NAICS by county. If \$1,000,000 were spent at a given vendor, and that vendor spends 25% on payroll then that \$250,000 would be applied to the average salary for that NAICS by county. If the average salary were \$50,000 then the equivalent of 5 jobs were created.

Subaward FTE Jobs and Industries

Funding Source	TOTAL All Industries		Accommodation and Food Services		Administrativ and Waste N	e and Support Nanagement	Constr	ruction	Educational Services	
	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period	Current Period	% Chg from prior period
Federal Non- Science	\$25,665,622	24%	\$284,269	-6.5%	\$354,957	64.9%	\$357,640	27.6%	\$349,245	69.8%
Federal Non- Science Stimulus	\$1,386,415	46%	\$35,936	195.5%	\$25,458	33.4%	\$19,555	14.9%	\$18,536	9.0%
Federal Science	\$73,551,207	28%	\$1,333,817	83.5%	\$876,850	17.4%	\$823,887	25.5%	\$1,211,950	91.6%
Federal Science Stimulus	\$9,960,784	70%	\$74,753	-57.6%	\$35,895	-35.5%	\$31,077	-28.7%	\$52,488	273.9%
Other	\$91,549,051	6%	\$2,311,280	665.6%	\$297,723	-73.5%	\$51,671	-98.0%	\$1,096,056	961.9%
Total	\$202,113,079	18%	\$4,040,055	165.6%	\$1,590,884	-26.3%	\$1,283,830	-64.6%	\$2,728,275	180.6%

Field	How Derived
Funding Source	Derived from available agency data or CFDA code
FTE Equivalents	Uses the DUNS industry based on the DUNS number for the Sub Award Recipient, DUNS lookup comes from
% Chg from prior period (FTE equivalents	The total dollars paid to the Sub Award recipient during the reporting period as supplied by the reporting university
Questions or Issues	Based on calculating the average quarterly salary for an employee by NAICS by county and calculating the payroll to sales ratio by NAICS by county. If \$1,000,000 were spent at a given sub-awardee and that sub-awardee spends 25% on payroll then that \$250,000 would be applied to the average salary for that NAICS by county. If the average salary were \$50,000 then the equivalent of 5 jobs were created.
	The percentage change in the number of FTE Equivalents from the prior reporting period - ((Current
Funding Source	Period - Prior Period) / Prior Period))
Occupational Classification	Dataset containing sales by NAICS by county was unavailable for this analysis, thus the payroll to sales ratio was approximated at 25% AR METRICS

Summary FTE Jobs

Funding Source	FTE Equivalents		
	Current Period (Including Overhead)	Current Period (Individuals, Sub Awards, Vendors)	% Chg from prior period (All Sources)
Federal Non-Science	802.9	694.4	14%
Federal Non-Science Stimulus	62.2	56.4	5%
Federal Science	1,986.0	1,679.8	20%
Federal Science Stimulus	298.4	255.2	51%
Other	22,898.2	22,898.2	2%
Total	25,788.1	25,324.4	3%

Field	How Derived
Funding Source	Derived from available agency data or CFDA code
FTE Equivalents	The sum of the FTEs calculated from all four sources for each award. Information on the specific calculations for each of the sources are located in the appropriate sections.
% Chg from prior period	The percentage change in the number of FTE Equivalents from the prior reporting period - ((Current Period - Prior Period) / Prior Period))
Award Id	Collected from the university grants system

Overhead FTE Jobs

Funding Source	Jobs Estimate	
	Current Period	% Chg from prior period
Federal Non-Science	108.5	22.9%
Federal Non-Science Stimulus	5.8	35.8%
Federal Science	306.2	28.0%
Federal Science Stimulus	43.2	63.1%
Other		
Total	463.7	29.4%

Field	How Derived
Funding Source	Derived from available agency data or CFDA code
FTE Equivalents	Based on calculating the overhead dollars charged to a given award and calculating the proportion of overhead dollars spent on salaries (and fringes), and then dividing that by the average quarterly salary for an employee for NAICS # 61 (educational services) for the county for that given institution.
% Chg from prior period (FTE equivalents	The percentage change in the number of FTE Equivalents from the prior reporting period - ((Current Period - Prior Period) / Prior Period))
Questions or Issues	The other category was excluded since it is non-Federal.

More Information: Participant Guide and Website Demo site: http://starmetricscomp.synthosys.com



Next Steps from Phase I

- Address any questions / concerns from this meeting
- Agree to proceed to data collection step
- Establish timing
- Establish working team
- Schedule working meeting with appropriate groups (IT, Finance, Grants, HR)
- Schedule data transmission

STAR METRICS: Phase II

Measuring Scientific and Economic Impact of Science Investments

Basic Approach

- Build on existing investments
 - Brazilian Lattes (example)
 - Vivo
 - Ideas from FDP/STAR METRICS partner institutions
- Collaboratively identify best approach and address:
 - Privacy Issues (System of Records Notice; PIA; PRA)
 - Technical Issues (NIH Central IT)
 - Dissemination and links to other federal activities (RPPR, federal R&D Dashboard)
- Working group

Any Questions?

- Stefano Bertuzzi stefano.bertuzzi@nih.gov
- Diane DiEuliis <u>ddieuliis@ostp.eop.gov</u>
- Julia Lane <u>jlane@nsf.gov</u>
- Linda Yu linda.yu@synthosys.com

VIVO Software for National Networking

- Developed at Cornell in 2004
 - Find faculty by interests, activities, accomplishments
- Release 1 to 7 schools now
 - Standard ontology
 - Local search
 - Application support
- Release 2, open adoption
 - Federated identity
 - Network search
 - Grouping, interfaces
- Release 3, national network
 - Most requested features



VIVO at Cornell: <u>http://vivo.cornell.edu</u>

 $\bigvee \bigcirc$ enabling national networking of scientists

Future application -- Find Scientists

VIVO

maps mandibular cyst researchers in brazil

Search Maps Sho

Show search options

Get Directions My Maps $\ll \gg$ 🖶 Print 🖂 Send 👄 Link uluá OBogotá Guya Connect More. ° researchers Colombia < 🖤 > Suriname Concepts: Tumor, Ondontogenic tumor, more ... Roraim: Amapá 0 Û _uis Fernando _ more info » Ecuador Rio Grande São Luis Rua Peixoto Gomide, 625 - São Paulo do Norte 0 Iquitos ÷ Fortaleza O SP. 01409-001. Brazil -Ceará Amazonas Teresina O (0xx)11 3147-9000 0 Pará Natal Maranhão Paraíba Category: Hospitals 0 Piauí Ŕeċi Brasil -Pernambuco papers, presentations, funding, more... 0 Acre Ma Perú Brazil 0 Maria Santos - more info » Huánuco Rondônia Tocantins Aracaju Alagoas Huancayo Bahia Avenida Paulista, 200 - Bela Vista, Mato 0 Grosso Sergipe 0 São Paulo - SP, 01310-000, Brazil -Cuzco (0xx)11 3016-4133 Cuiabá Goiás 👝 0.1 Arequipa iaca Category: Hospitals 70 Bolivia Moqueg UBO Minas Goiân Gerais papers, presentations, funding, more... Campo Espírito Grande Gabriela Sousa - more info » Santo Mato Grosso Av. Albert Einstein, 627 - São Paulo -Rio de do Oul São SP. 05652-000. Brazil -Janeiro Paraguay \mathbf{m} Salta (0xx)11 3747-2001 garaná O OO Category: Hospitals Curitiba Santa papers, presentations, funding, more... Catarina Marcelo Wilson - more info » Rio Grande do Sul Rua Dona Adma Jafet, 91 - Bela Vista, OCórdoba: São Paulo - SP. 01308-050, Brazil -Rosario Uruguay (0xx)11 3155-0200 0 0 d' Category: Hospitals 0 OMontevideo Argentina Chile papers, presentations, funding, more... Aires

Semantic search finds only items of interest.

ENABLING NATIONAL NETWORKING OF SCIENTISTS

Future application -- Understand Collaborations



A sample PI/Co-PI network

More recent collaborations are lighter in color

Larger circles indicate larger awards

I V O ENABLING NATIONAL NETWORKING OF SCIENTISTS

Future application – Route Info



I CO ENABLING NATIONAL NETWORKING OF SCIENTISTS

PH8 398/2590 (Rev. 09/04)

BIOGRAPHICAL SKETCH
Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGE 8.

Michael Conlon Interim Director of Biomedical Informatics, University of Florida EDUCATION/08.USER NAME MCONLON University of Florida EDUCATION/08.A)NING, (Begh with baccaleveate or other Initial professional education, such as nursing and include postbicibral training). PIELD OF STUDY Bucknell University, Lewisburg, PA B.A. 1975 Mathematics Bucknell University, Lewisburg, PA B.A. 1975 Economics University of Florida, Gainesville, FL M.Stat 1979 Statistics University of Florida, Gainesville, FL M.Stat 1979 Statistics 2008- Interim Director, Biomedical Informatics, College of Medicine, University of Florida. 2008- Associate University CIO, IT Architecture 2008- Associate Director, Clinical and Translational Science Institute, University of Florida. 2008- Research Associate Professor, Department of Epidemiology and Health Policy Research, University of Florida 2008- Research Associate Professor, Department of Epidemiology and Health Policy Research, University of Florida 2002-03 Co-founder and Chief Technology Officer, MarCon Global Data Solutions, Incorporated 2002-03 Co-founder and Chief Technology Officer, MarCon Global Data Solutions, Incorporated 197-02 Assistant Vice President for	POSITION TITLE				
BAC COMMONS USER NAME MCONLON University of Florida EDUCATION/CRAINING, (Beph with Intercal-averate or other Initial professional education, such as nursing and Include postdoctorel training). FIELD OF STUDY BUCKNEIL UNIVERALINING, (Beph with Intercal-averate or other Initial professional education, such as nursing and Include postdoctorel training). FIELD OF STUDY BUCKNEIL UNIVERSITY, Lewisburg, PA B.A. 1975 Kathematics Buckneil University, Lewisburg, PA B.A. 1975 Economics University of Florida, Gainesville, FL M.Stat 1979 Statistics University of Florida, Gainesville, FL Ph.D. 1982 Statistics 2008- Interim Director, Biomedical Informatics, College of Medicine, University of Florida. 2008- 2008- Interim Director, Clinical and Translational Science Institute, University of Florida. 2008- 2008- Interim Director, Clinical and Translational Informatics Program, University of Florida. 2008- 2008- Research Associate Professor, Department of Epidemiology and Health Policy Research, University of Florida 2005-08 2008- Research Associate Professor, Department of Epidemiology and Health Policy Research, University of Florida 2002-03 2002-03 <t< td=""><td colspan="2">Michael Conlon Interim Director of Biomedical Informatics,</td></t<>	Michael Conlon Interim Director of Biomedical Informatics,				
EDUCATION/GRA/Mole, (Bech with Jaccaleureate or other Initial professional education, such as nursing and Include postdoctrial iteration) INSTITUTION AND LOCATION DEGREE (I applicable) YEAR(s) FIELD OF STUDY Bucknell University, Lewisburg, PA B.A. 1975 Mathematics Bucknell University, Lewisburg, PA B.A. 1975 Economics University of Florida, Gainesville, FL M.Stat 1979 Statistics A Positions and Honors Ph.D. 1982 Statistics 2008- Interim Director, Biomedical Informatics, College of Medicine, University of Florida. 2008- 2008- Associate University CIO, IT Architecture 2008- Associate Director, Clinical and Translational Science Institute, University of Florida. 2008- Interim Director, Clinical and Translational Informatics Program, University of Florida. 2008- 2008- Research Associate Professor, Department of Epidemiology and Health Policy Research, University of Florida 2002-03 2005-08 PeopleSoft Implementation Officer, University of Florida 2002-03 Co-founder and Chief Technology Officer, MarCon Global Data Solutions, Incorporated 1977-02 Assistant Vice President for Health Affairs, Academic Information Systems and Support and Cl Inf	University of	University of Florida			
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1992-08 Research Associate Professor, Department of Statistics, University of Florida	rmation Resources and Technology Program lorida	ege of Liberal Arts and Sciences			
	ciate Professor. Department of Statistics, U	y of Florida			
1982-83 Asst. Dir. of Acad. Computing. Ctr for Instr. and Research Computing Activities, Univ. of Florid	Asst. Dir. of Acad. Computing. Ctr for Instr. and Research Computing Activities, Univ. of Florida				
1980-83 Director, Statistical Consulting Center, Center for Instructional and Research Computing Activi	83 Director, Statistical Consulting Center, Center for Instructional and Research Computing Activities				
Other Experience					
2009- Member, InCommon working group on Research Administration	mmon working group on Research Administ				
2008- Chair, Health Science Center Information Architecture Committee	cience Center Information Architecture Cor				
2008- Member, Health Science Center Information System Advisory Council	Member, Health Science Center Information System Advisory Council				
2008-09 Chair, University Planning Group on Computational Biology	Chair, University Planning Group on Computational Biology				
2007-08 Member, Health Science Center Information Architecture Committee					
2004- Member, Educause Working Group on Identity Management					
2003- Chair, Information Technology Advisory Committee on UF Active Directory	Chair, Information Technology Advisory Committee on UF Active Directory				
2003-05 Editor, AmStat OnLine, American Statistical Association	OnLine, American Statistical Association	-			
2002- Member, Information Technology Advisory Committee, Data Infrastructure and Administrative Computing	nation Technology Advisory Committee, Da	tructure and Administrative			
2002-03 Chair, University Directory Services Committee	Chair, University Directory Services Committee				
2001-03 Member, Microsoft national Higher Education Advisory Group					

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Future application -- Simplify Tasks

- Information in VIVO can be used to create
 - Biosketches
 - Vitas
 - Annual reports
 - Department and research group web sites
- Information can be used to populate profiles in collaborative tools – portals, wikis, ...

ENABLING NATIONAL NETWORKING OF SCIENTISTS

Biographical Sketch Format Page

Institutional Architecture

- Three sources of VIVO information
 - User data
 - Institutional data
 - Provider data
- Two formats for output
 - Web Pages for users
 - Resource
 Description
 Framework for
 applications



 \mathbf{V} O enabling national networking of scientists

National Architecture

- National Network Users access applications
- Applications access standard information
- VIVOs are independent
- Apps are independent
- Other systems can provide information according to standards





National Network National Network Application User Application User

National Network Application User









National Networking Team

- University of Florida, Gainesville, FL
- Cornell University, Ithaca, NY
- Ponce Medical School, Ponce, PR
- Indiana University, Bloomington, IN
- Washington University, St Louis, MO
- Weill-Cornell Medical College, NY, NY
- The Scripps Research Institute, La Jolla, CA



Collaboration and Coordination

Open engagement to foster national networking

- Inventory of Resources Eagle-I, Lee Nadler, Harvard
- Federal agencies NIH, NSF, ...
- Search Providers Google, Bing, Yahoo, ...
- Professional Societies AAAS, ...
- Publishers Elsevier, Thomson Reuters, Collexis, ...
- Semantic Web community DERI, Linked Data, ...
- Consortia of schools SURA, CTSA, CIC, FLR, ...
- Existing service providers over 40

Sustainability

- Information is institutionally hosted and maintained to benefit the institution and its scientists
- VIVO software is open source, community maintained
- National network applications can be commercial or open source
- Institutions may use open source, commercial versions of VIVO, or other platforms that provide data to the national network

Project Status

- Development Interfaces, packaging at UF, ontology and social networking at Indiana, semantic web, user experience at Cornell
- Implementation Cornell (existing), UF (underway), Indiana (11/2009), Washington U (11/2009), Weill (12/2009), Scripps (1/2010), Ponce (1/2010)
- **Outreach** Presentations, inquiries, collaboration
- Governance TAB, SAB, EAB
- **Evaluation** Washington Univ.
- Visit <u>www.vivoweb.org</u>