

eRA – Looking ahead

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Agenda

- Introduction – Topics Dr. Bradley
- Introduction – Technology Kalpesh Patel
- Technology usage scenario JJ Maurer
- Discussion

Topics

■ Objective

- Get an overview of technology
- eGrants – How could it change our process?
- e-Government with eGrants
- Technology only as an enabler

■ Scenario walkthrough

■ Discussion – How is this applicable in my business process?

Some ASSUMPTIONS for e-RECEIPT

- Applications are composed electronically by the external community
- A standard is used for the XML file and style sheet
- NIH eRA Commons Registration, IPF and PPF are in place for all Key Persons
- The submitter can add Scientific Terms and select a IC-SRG.
- The application is received as an XML file
- The eRA system has the capability to match scientific text against a Knowledge Database of other scientific text (Appls, SRG, Citations)
- A workflow engine will be configured to route applications and notify participants

Technology Introduction

- XML
- Knowledge Management
- Collaboration
- Wireless

I am disappointed...

- Why are we not at Xerox building?

Management Speak

- Management Speak: That's very interesting.
- Translation: I disagree.

- Management Speak: I don't disagree.
- Translation: I disagree.

- Management Speak: I don't totally disagree with you.
- Translation: You may be right, but I don't care.

Management Speak

- Management Speak: We have an opportunity.
- Translation: You have a problem.

- Management Speak: You obviously put a lot of work into this.
- Translation: This is awful.

- Management Speak: In a perfect world.
- Translation: Just get it working and get it out the door.

- Management Speak: Help me to understand.
- Translation: I don't know what you're talking about, and I don't think you do either.

Management Speak

- Management Speak: My mind is made up. I am adamant on the subject. There is no room for discussion. But if you do want to discuss it further, my door is always open.
- Translation: &%^\$ you.

- Management Speak: I appreciate your contribution.
- Translation: @#%* you!

Management Speak

- Management Speak: We have to leverage our resources.
- Translation: You're working weekends.

- Management Speak: Individual contributor.
- Translation: Employee who does real work.

Management Speak

- Management Speak: You needed to be more proactive.
- Translation: You should have protected me from myself.

- Management Speak: I'd like your buy-in on this.
- Translation: I want someone else to blame when this thing bombs.

- Management Speak: We want you to be the executive champion of this project.
- Translation: I want to be able to blame you for my mistakes.

Management Speak

- Management Speak: We need to syndicate this decision.
- Translation: We need to spread the blame if it backfires.

- Management Speak: It's a no-brainer.
- Translation: It's a perfect decision for me to handle.

- Management Speak: I'll never lie to you.
- Translation: The truth will change frequently.

Introduction to XML

- XML = eXtensible Markup Language
- You define your own tags DTD – Document Type Definition
- Independent of format – Only structure & semantics
- Self Describing Data
- Easy conversion from one to the other
 - XML => XSLT => HTML, PDF, another XML

XML for eRA

- Electronic receipt and submission of documents (CGAP, e-SNAP, e-NAP)
- Integrations with ICs
 - Easier data exchange
 - Reuse eRA objects via Web Services
- Present same data (e.g., hitlist) to different users in different formats (using style sheets)
- View data via multiple devices (PDA, cell phone)
- Easier migration to new platforms (browsers, wireless)
- Export hitlist to XML - load to IC apps/Excel
- Make data Section 508 compliant (tags read by device)
- Data communication with external partners

Introduction to KM

- Information is derived from interrelated data
- Knowledge is derived from interrelated information
- Organizational “memory” is created and managed => Knowledge asset
- Sharing Knowledge => Increasing productivity

KM for eRA

- Knowledge is the most important asset NIH owns
- Expedite Referral & Review process
- Analyze portfolio for science
- Effectively reuse captured knowledge (repeatable tasks may be automated)
- Perform reporting and identify trends by analyzing captured knowledge
- Implement “best practices” based on captured knowledge

Example of Knowledge Management

- One limited example:
 - Create a “signature” for a document based on a standard thesaurus
 - Match the doc signature against a repository of documents already abstracted
 - Get a numerical likelihood of a match “a match grade” (let’s avoid the word score)

Introduction to Collaboration

- Forums
- Chat
- Document posting and sharing
- On-line helpdesk services
 - Walk user through issues
 - Helpdesk staff work on multiple issues simultaneously

Collaboration for eRA

- Online meetings across eRA
- Electronic review
- Managing knowledge through collaboration
 - Share documents through Web portal
 - Forum on specific science
 - RFA/PA
 - Specific Meeting

Wireless for eRA

- No need to “plug-in” for access/free to roam
- Access via PDA, cell phone
- Conference rooms do not have to be wired for all participants
- Training can be given to more users regardless of network connections
- Instantaneous access to notifications

Impact of eGrant: Issues to be addressed by each Business Area

- What do you need to change about your business process?
- What can be changed when?
- Does the migration plan fit in?
- What policy questions we need answers on?
- What is the role of business intelligence in your respective organizations?
- Opportunities for business process improvements?

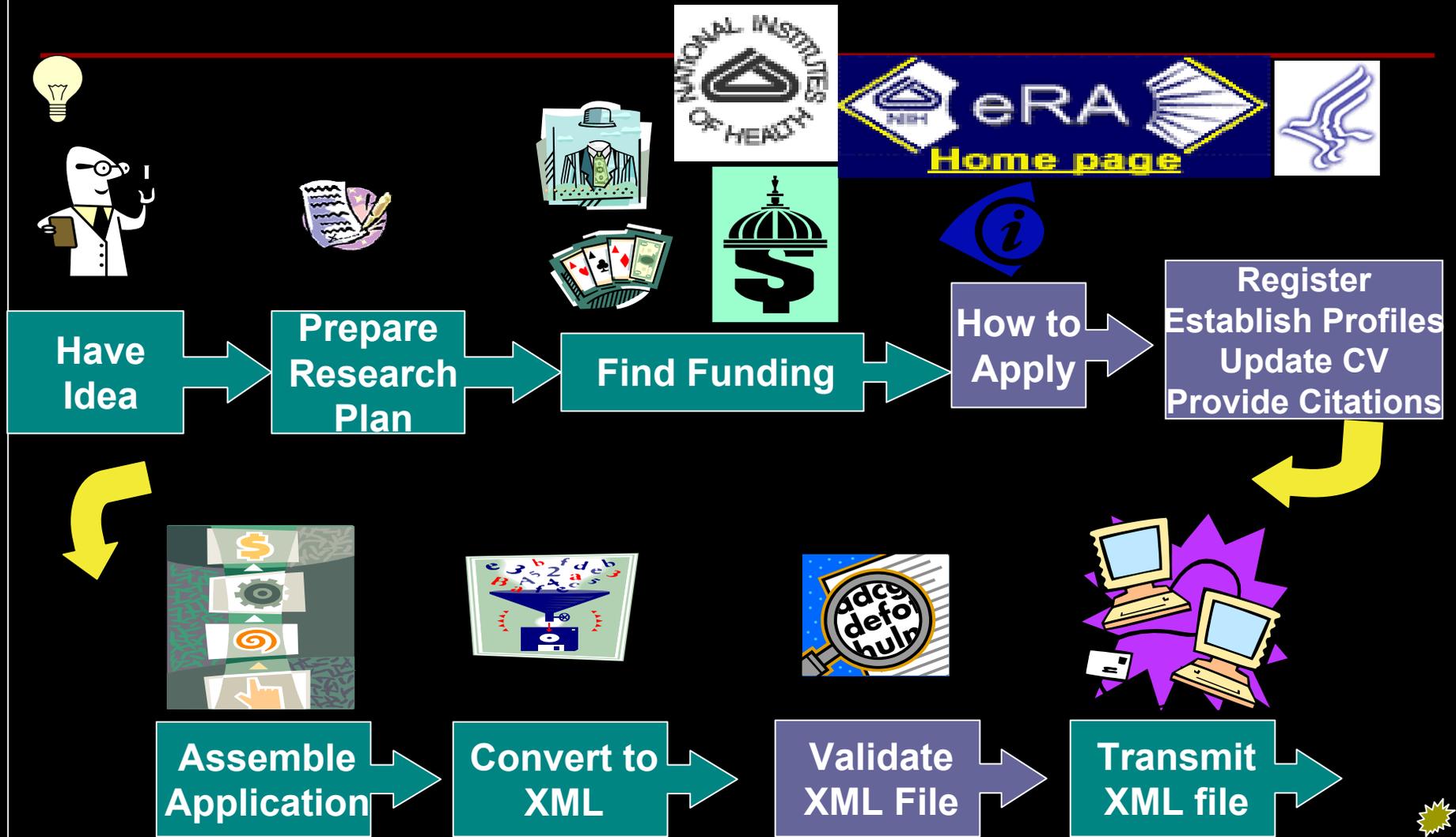
Scenario of Processes Enhanced by Technology

- Electronic Receipt, Referral process
- Integration with Review
- Technology assisted meetings

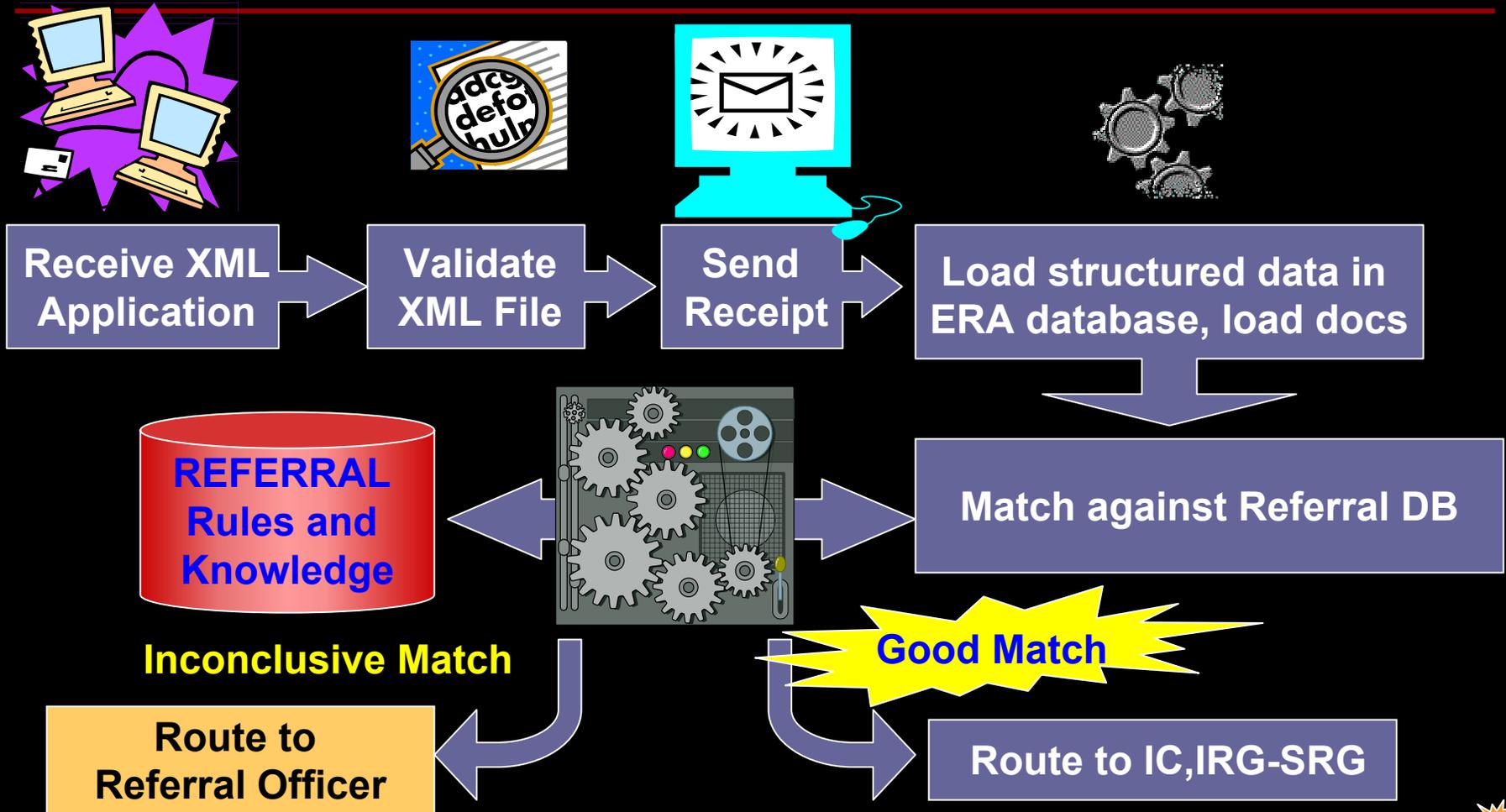
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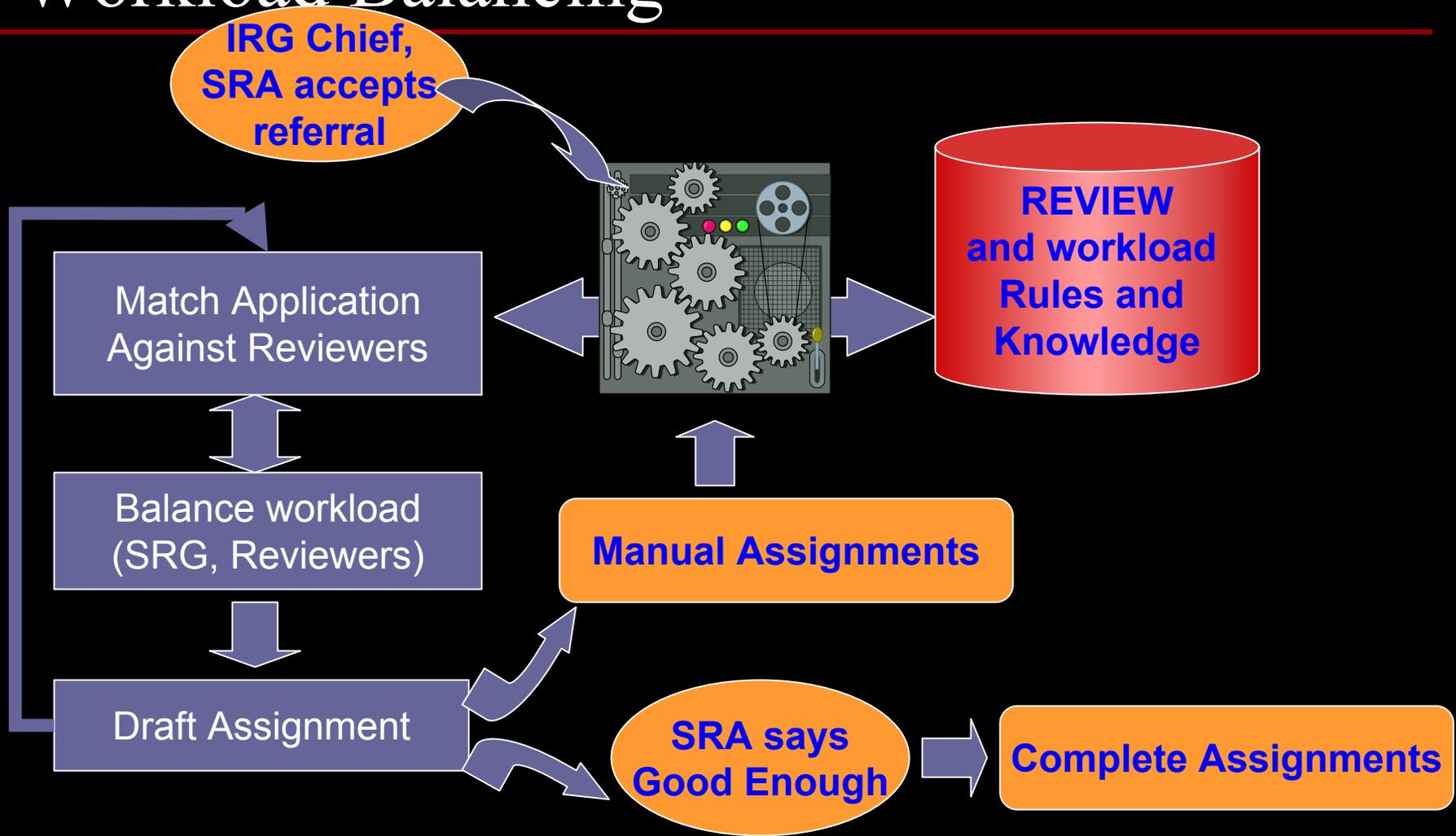
Preparation and Submission



eRA System Receives and Refers



eRA Helps Assignments and Reviewer Workload Balancing



Electronic Receipts versus Paper

Weeks 1 2 3 4 5 6 7 8 9 10 11

Unbox, apply label, data entry

Receive file

Print shop, Scan, Bookmark

XML to PDF ?

Refer to IC (SRG) or CSR
(IC,SRG)

KM assisted referral

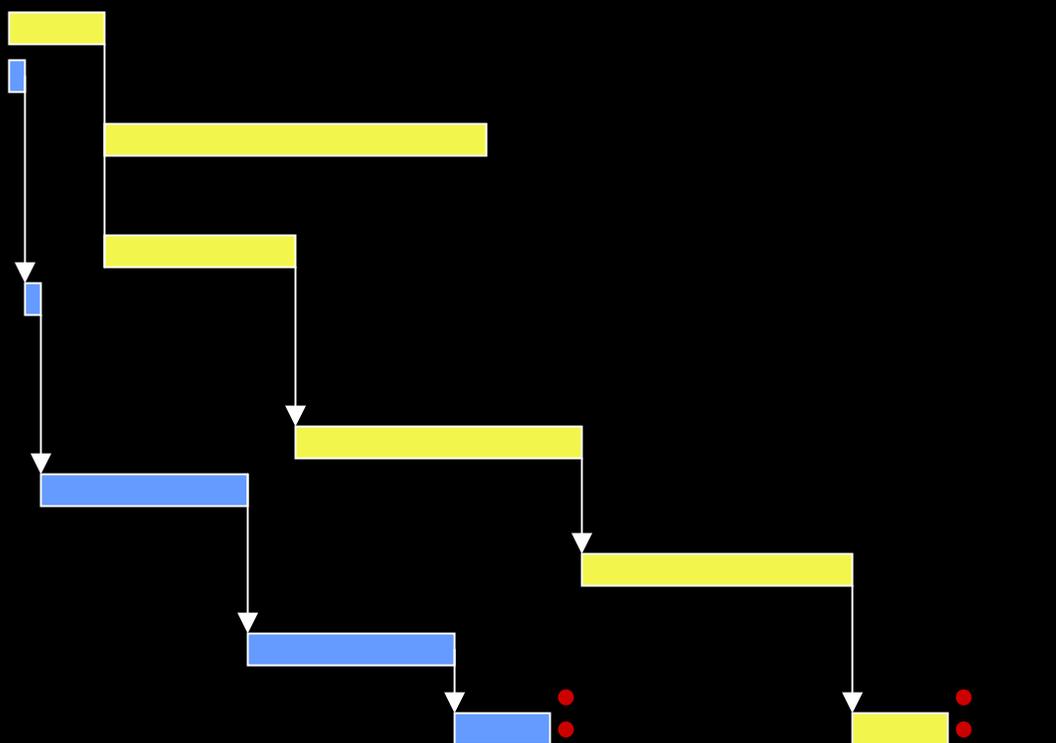
Recruit and make assignments

KM assisted Recruit and Asgn

Send out apps and allow time
for review

On-line access to apps, IAR

Conduct meeting



Effect on Business?

Walkthrough of e-Application Scenario

- 4 sections
 - Preparation and submission
 - Receipt and referral
 - Reviewer assignments
 - IAR-based meetings
- Walk through each section, discussion
- Where else can the process be changed based on e-Applications ?

Issues to be discussed and worked out

1. When XML streams come in, the paper process will still continue.
 - How do we integrate these two processes?
 - The XML stream will have more fielded information like
 - Detailed budget, Key Personnel, Distinct-Searchable abstract, project plan
 - Sub-projects
 - A) Expand data structures in IMPAC II, screens to access this information
 - B) Just store XML files and develop apps to read and update XML files
 - C) Will the data entry of other applications be expanded in the future to match the electronic apps ?
 - Business decision: 2 distinct populations of grants or unified system and storage

E-Grants: Issues for Discussion (1)

2. Is there a policy or guideline defined for accepting grants electronically?
 - Authentication, Approvals, Official Record
3. What are the rules for formatting and other content rules to accept an application
 - Are they self imposed, tied to a regulation, tied to the paper process ?
 - Should there be new rules concerning the type of file and software version for the application
 - Can the NIH limit the graphics and project plan to certain types of file formats and standards
 - Does NIH e-Receipts have to follow layout of PHS or OMB forms?
4. How does the system make sure that the way the applicant sees the applications is the same way the reviewer sees the application?
 - The same formatting? Is that a requirement ?

E-Grants: Business Process Changes

5. What desk procedures have to change to process grants totally electronically?
 - What are all the documents in the electronic file?
 - What annotations are on the file that need to be visible?
6. What is the policy or guideline for electronic approvals & signature when using an electronic workflow?
7. Can/Must the eRA workflow be extended for IC use?
8. Do we have to follow PHS forms for items like supplements?
9. How do we handle just-in-time grants with data streaming?

E-Grants: Requirements to be defined

10. Large institutions will want to submit grants in batches. The batch will be submitted by some machine
 - How do we make sure it is considered “Submitted”?
 - What authenticates the external partner machine.
11. What is the acknowledgement of receipt ?
 - Accession number, send app back as PDF?
12. What do we do with rejected applications? (failed validation)
 - Is there a record kept?
 - Is the file kept?
13. What do we do with applications that are not funded?
 - Keep the file, keep a record of receipt only, keep processing history but remove the file?

E-Grants: Requirements to be defined (2)

14. How do we ask PIs for missing information?

- Will they submit the whole XML again or
- Only the missing parts?

15. How do we handle the change requests after XML stream is accepted by NIH?

16. For electronic application, how should we handle PI's request of withdrawal?

17. Do Key project personnel need person profile?
(recommended!)

- Who is key?
- Is that the official rule for e-applications?

Change of topic

20. What are the opportunities to apply business intelligence techniques and add value to the management process.
21. How can Knowledge Management help your business?
 - Program: Match incoming applications to the science specified in the RFA/PA and notify appropriate program official.
22. What time lag is acceptable between a transaction and the availability of data for analysis, reporting

Impact of eGrant: Issues to be addressed by each Business Area

23. What do you need to change about your business process?
24. What can be changed when?
25. Does the migration plan fit in?
26. What policy questions we need answers on?
27. What is the role of business intelligence in your respective organizations?
28. Opportunities for business process improvements?

FY2003 Priorities – Technology Introduction ?

- Knowledge Management
- Wireless
- XML
- Collaboration

End of questions

- Next steps

Action Items and Follow up for eGrant based processes

- List of questions re-arranged.
- Questions listed are just the top of the heap.
- What are the best ways of moving to e-Grants?
- How to take advantage of the opportunity to improve business processes.

Group 1: Policy for acceptance, visual format of eGrants

- 2 Is there a policy or guideline defined for accepting grants electronically?
 - Authentication, Approvals, Official Record
- 6 What is the policy or guideline for electronic approvals & signature when using an electronic workflow?
- 10 Large institutions will want to submit grants in batches. The batch will be submitted by some machine
 - How do we make sure it is considered "Submitted"?
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- 11 What is the acknowledgement of receipt ?
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- 26 What policy questions we need answers on?
- 3 What are the rules for formatting and other content rules to accept an application
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 - Does NIH e-Receipts have to follow layout of PHS or OMB forms?
- 8 Do we have to follow PHS forms for items like supplements?

Tentative Focus Group: Marcia Hahn, Eileen Bradley, Tim Twomey, Carlos Caban, Della Hann, Wally Schaffer, Mark Siegert, Dan Hall

Group 2: Business Process Requirements

5 What desk procedures have to change to process grants totally electronically?

- What are all the documents in the electronic file?
- What annotations are on the file that need to be visible?

7 Can/Must the eRA workflow be extended for IC use?

21 How can Knowledge Management help your business?

- Program: Match incoming applications to the science specified in the RFA/PA and notify appropriate program official.

23 What do you need to change about your business process?

24 What can be changed when?

Group 3: Business Process Requirements Focus Groups (tentative)

RR: Richard Panniers, Sara Silver

REV: Eileen Bradley, Scarlett Gibb, Tracy Soto

PRG: Carlos Caban, Bud Erickson, Sherry Zucker

GM: Marcia Hahn, Cathy Walker

CM: Anna Snouffer, Krishna Collie

Finance: Nancy Vess, Steve Fitzgerald

Overall: Steve Hausman, Thor Fjellstedt, Mike Cox,
Steve Hughes

Group 4: Reporting, Analysis, Retention requirements

17 Do Key project personnel need person profile?
(recommended!)

Who is key?

Is that the official rule for e-applications

20 What are the opportunities to apply business intelligence techniques and add value to the management process.

27 What is the role of business intelligence in your respective organizations?

22 What time lag is acceptable between a transaction and the availability of data for analysis, reporting

12 What do we do with rejected applications? (failed validation)

- Is there a record kept?
- Is the file kept?

13 What do we do with applications that are not funded?

- Keep the file, keep a record of receipt only, keep processing history but remove the file?

Focus Group(tentative): Belinda Seto, Jim Tucker, Bob Moore, Carol Martin, Cathy Walker, Johnnie Pearson, Chanath Ratnanather, Steve Fitzgerald

Group 5: Migration Plan to support eGrants

25 Does the migration plan fit in?

Focus group (tentative): Donna Frahm, Kalpesh Patel,
Sherry Zucker, Tim Twomey

End of Issues/Focus Groups
