

Managing Best Practices

Adapting CMMI Policies and Procedures Used
in One Part of an Organization to Another

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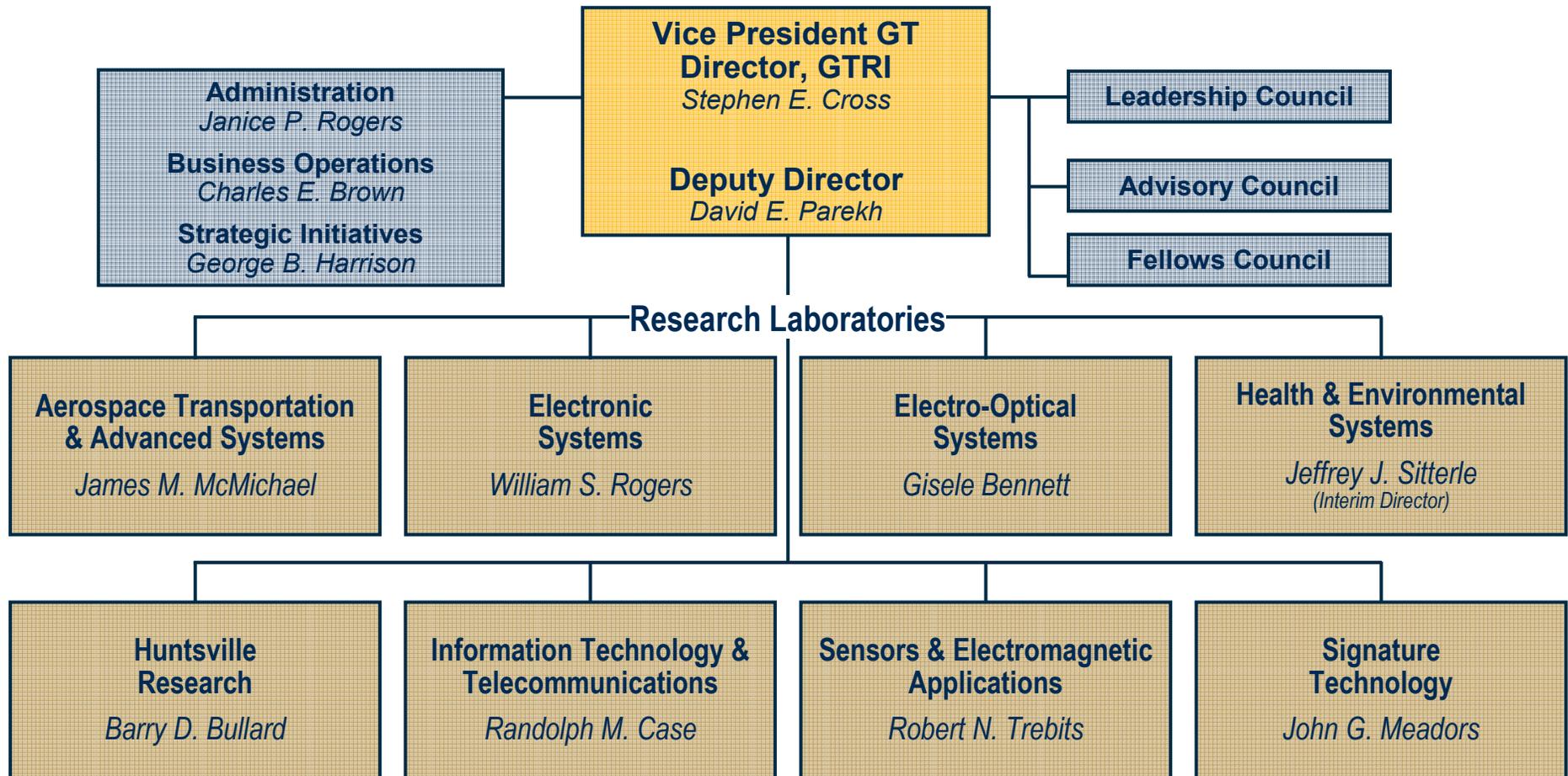
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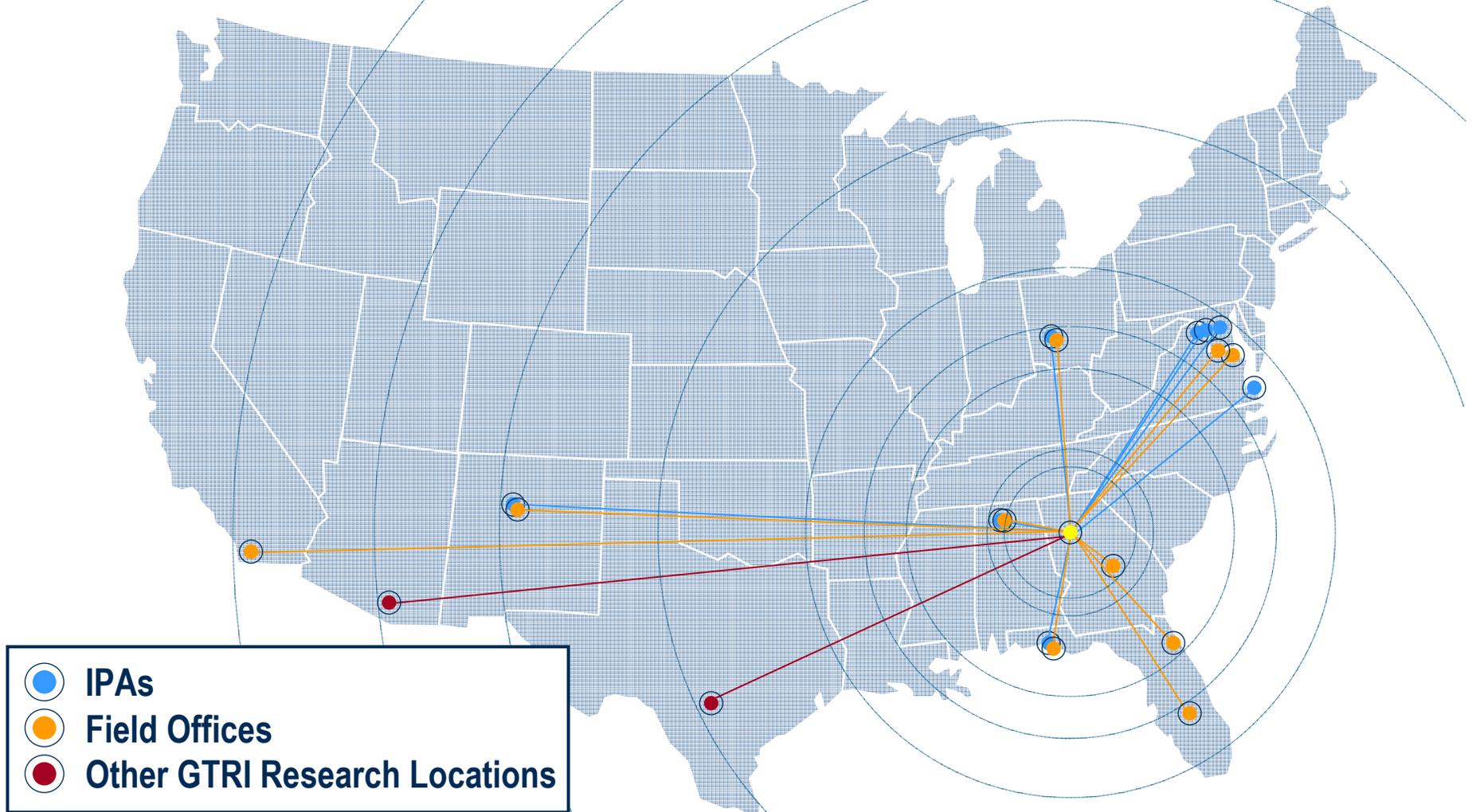
Overview

- Questions
- About GTRI
- CMM/CMMI at GTRI
- ELSYS Laboratory
- ITTL Laboratory
- Timeline for Implementation at ITTL
 - Prior to 2004
 - 2004 to Present
 - Future

GTRI Organizational Structure



GTRI'S National Presence



Personnel Statistics

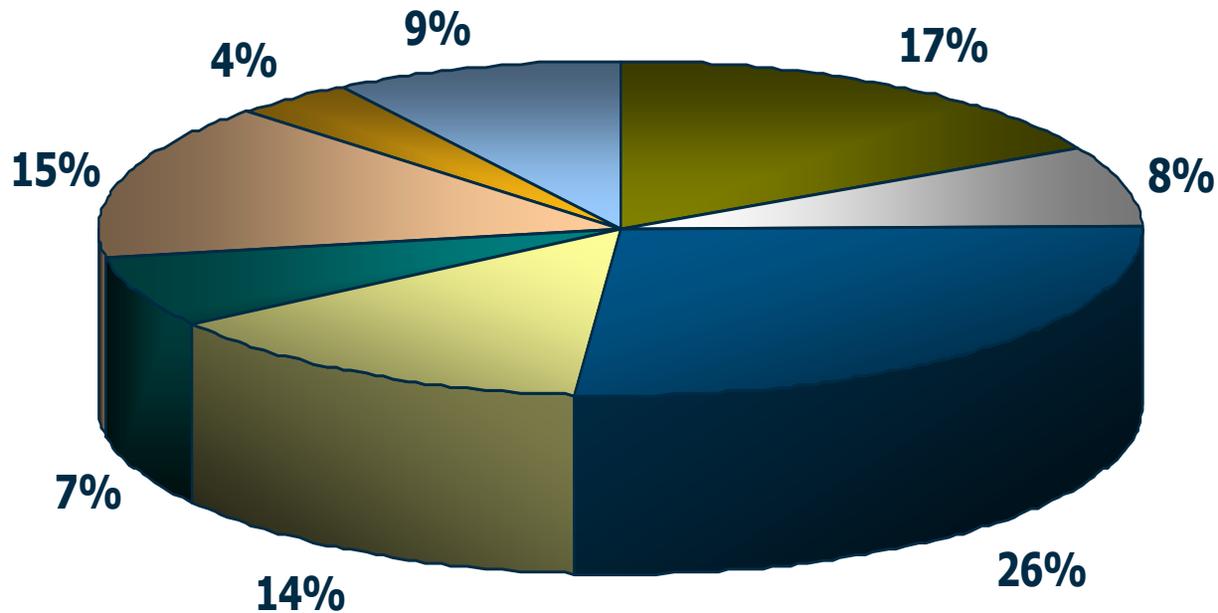
As of October 2005

Research Faculty	552
Research Temp/Retired	94
Classified Professional	29
Classified Regular	238
Support Temp/Retired	126
Students	237
<i>Total</i>	<i>1,276</i>



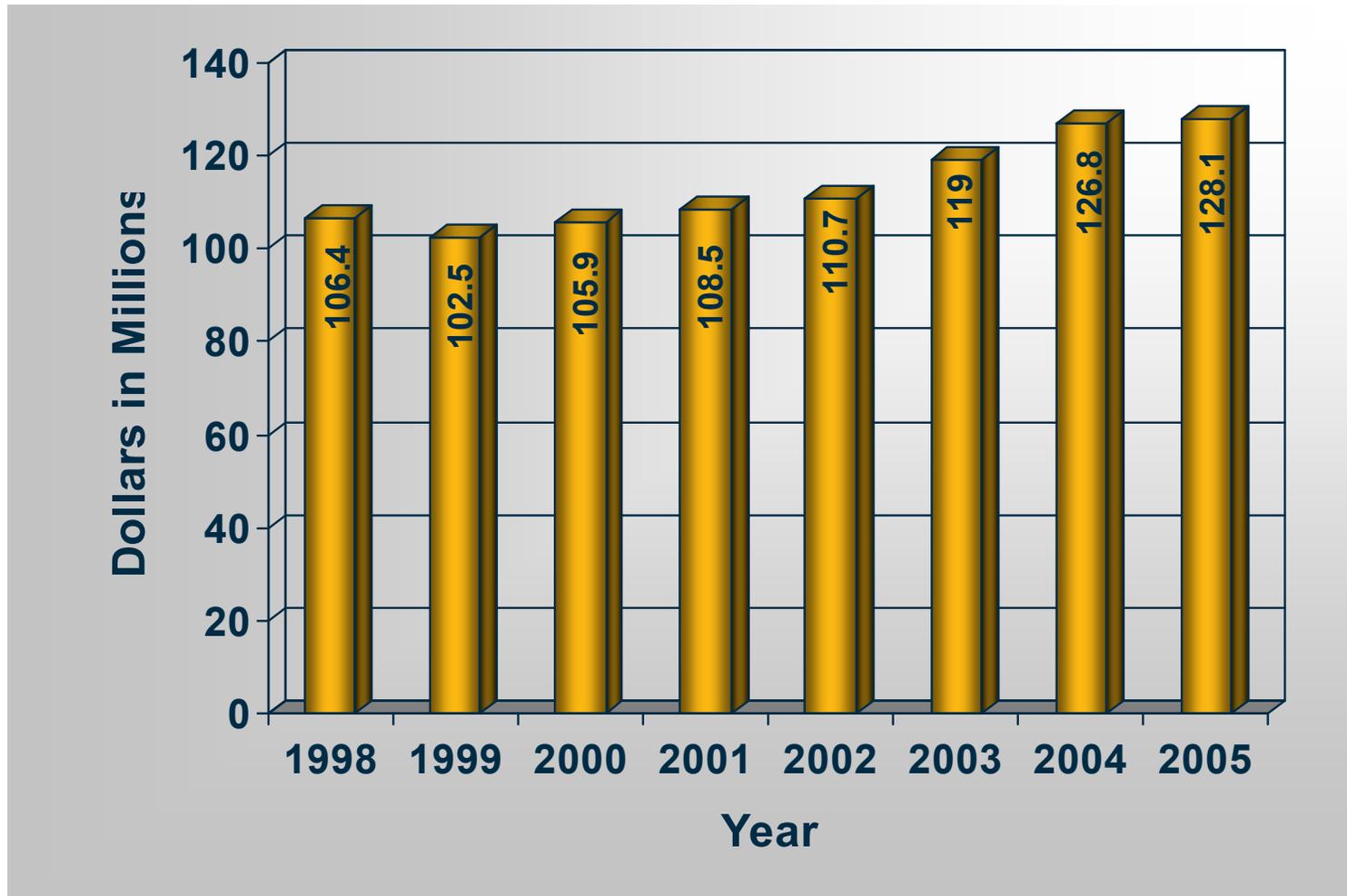
GTRI Financial Statistics

FY05 Major Customers



GTRI Financial Statistics

Historical Volume



CMM/CMMI at GTRI

- **Electronic Systems Lab (ELSYS) CMM Level 3**
- **Huntsville Lab functioning at CMM Level 4**
- **Information Technology and Telecommunications Lab (ITTL) has committed to becoming CMMI Level 3**
- **ELSYS and ITTL working to be jointly assessed on CMMI continuous model in calendar year 2006**

Comparison of ELSYS and ITTL

- **Independently Managed**
- **Comparable Size (ELSYS slightly larger)**
- **Both perform DOD centric work**
- **ELSYS has greater percentage of work from small number of customers**
- **ITTL has greater variety of customer types**
- **ELSYS main customers are requiring CMM/CMMI**
- **Some ITTL customers also requiring CMM/CMMI, but many others are not**

CMM/CMMI at ELSYS

- **Multi – Year Effort**
- **Costs shared with GTRI**
- **Intended to be basis for other labs becoming certified**
- **Certified CMM Level 3 in 2003**
- **Processes defined by Engineering Processes and Procedures Manual (EPPM)**
- **Tailored for individual projects**
- **EPPM being modified to address CMMI issues**

CMMI Issues at ITTL

- **Commitment to certify required to work on some contracts**
- **Certification necessary to bid on others**
- **Many of our customers don't care about CMMI**
- **Varying levels of motivation for certification**

Timeline for Implementation at ITTL

- **Prior to 2004**
- **2004 to present**
- **Future**

Prior to 2004

- **Lab growing, recognized for doing good work**
- **Most Projects Well Managed**
- **Specifics of Project Management decided at Project Level**

2004 to present

- **January 2004 – appointed dedicated QA Manager**
- **Told to jointly pursue CMMI and ISO certification**
- **April 2004 – QA Manager recommends only pursuing CMMI certification, approved by lab management**
- **April – Sep 2004 implementation plans developed**
- **September 2004 – Lab Director announces plan to pursue certification to laboratory**

2004 to present (cont)

- **Sep 2004 - Initial implementation efforts**
- **Joint Management Steering Group with ELSYS**
- **Level of support at project level mixed**
- **Strong support at management level**
- **Projects had not budgeted for this effort in current projects**

2004 to Present (cont)

- **Projects expected to have**
 - **Project Plan**
 - **Written Requirements**
 - **Written Design**
 - **Kept current**
 - **Controlled Changes**
 - **Budget for Quality in New Bids**

2004 to Present (cont)

- **EPPM**
 - **Large Document**
 - **Evolved over 5+ years at ELSYS**
 - **Mostly applicable to ITTL projects**
 - **Too much to implement all at once**
 - **Some may be overkill on small projects**
 - **Identified key processes for all projects**
 - **Tailor as appropriate for individual projects**

2004 to Present (cont)

- **Inter lab relationships**
 - **ELSYS providing valuable support and guidance**
 - **ITTL usually accepting support and guidance**
 - **MSG meetings very valuable for big picture**
 - **Generally follow same processes**
 - **Occasionally we vary on specific implementation details**
 - **Working jointly to modify EPPM to meet CMMI standards**
 - **Teamwork benefits overall inter-lab relationship**

2004 to Present (cont)

- **ITTL QA Department**
 - **Dedicated QA Manager**
 - **3-4 other QA personnel**
 - **QA people also do project work**
 - **Not on projects where they do QA**

2004 to Present (cont)

- **Adopting existing EPPM used by another lab**
 - **Very valuable – shown to work for similar organization**
 - **More similarities than differences in work performed**
 - **Some resistance due to culture of autonomy**
 - **Much of value of EPPM is not in the EPPM itself – it is in the blood, sweat and tears involved in developing it**
 - **Overall, having EPPM to adopt is quite valuable, but it doesn't remove the need to learn from our own mistakes – there is value in the journey**

2004 to Present (cont)

- **Support for CMMI processes within lab**
 - **Initially quite varied**
 - **Frank and open exchange of ideas**
 - **Management support essential**
 - **Many with high level of resistance now supportive**
 - **Still some that are not**

2004 to present (cont)

- **Northrop Grumman external audit**
 - **October 2005**
 - **Done on JMPS program for their SAM process**
 - **19 point checklist**
 - **Overall feedback very positive**
 - **3 comments**
 - **Asked for one supplemental document**
 - **Not a real audit – we have a long way to go**

2004 to present (cont)

- **Lessons (being) learned**
 - **It will take longer than you think**
 - **Very valuable to be helped by successful group**
 - **Also value in learning from your own mistakes**
 - **Management support and commitment essential**
 - **People will back you if you can show value**

Future

- **Work with ELSYS to modify EPPM**
- **Joint assessment 2006 (Continuous Model, hope to show at least Level 2 on all KPAs)**
- **Joint assessment 2008 (Continuous Model, hope to show at least Level 3 on all KPAs)**
- **Continuous Improvement**

- **Questions/Comments???**
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