

Take 5 for Safety

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Managing for Excellence





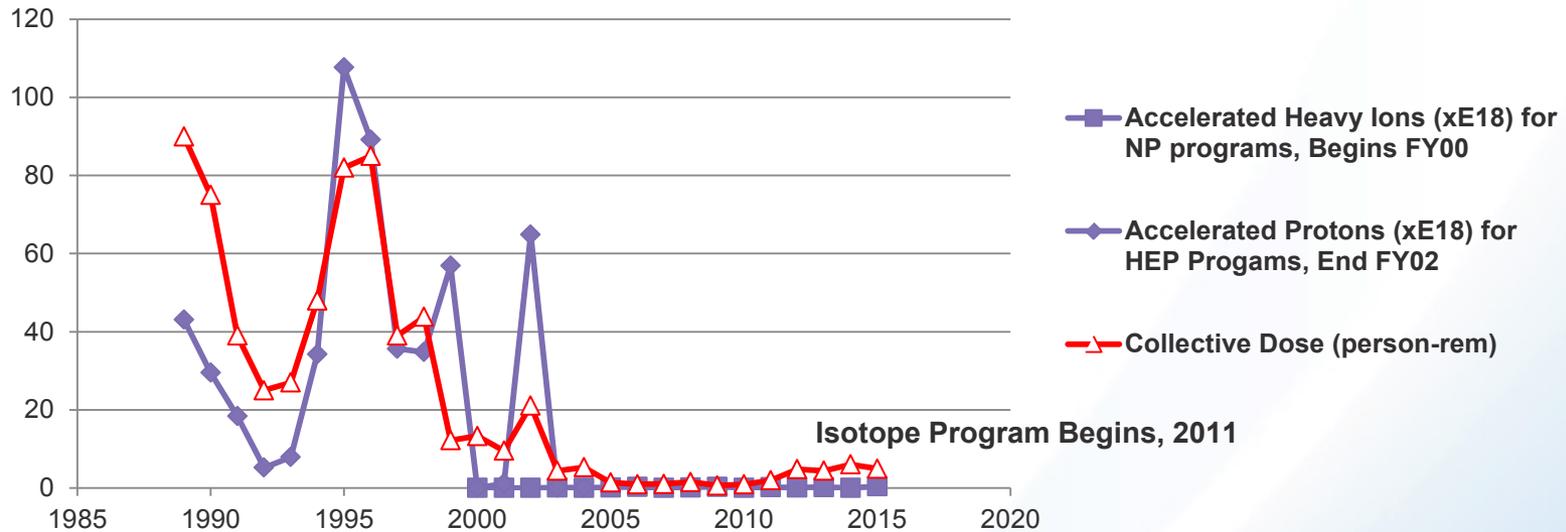
C-AD Operational Practices Added after 1991

- Safety Committee Reviews
- Management Review
- • Performance Indicators
- Assessment Tracking System Action Closure
- • Critiques and Lessons Learned Reports
- • Occurrence Reports
- Unreviewed Safety Issue Process
- Design Review Questionnaires
- Environmental Assessments
- • Facility, Area and Job Risk Assessments
- Hazard Assessments
- • Internal Assessment Reports
- Legacy Issues Committee Reviews
- • Manager Work Observation Reports
- Quality Assurance Assessment Reports
- Safety Assessment Documents
- Accelerator Safety Envelopes
- • Safety Inspection (Tier 1) Reports
- Self-Assessment Plan and Annual Report
- Shield Block Inspections
- • Training and Qualification Reports
- Accelerator Readiness Reviews
- BHSO Facility Representative Surveillances
- BNL Building Occupancy Readiness Reviews
- BNL Cryo/Pressure / ESH Committee Reviews
- BNL ESH Directorate Assessments
- • BNL Internal Oversight Assessments
- • DOE ESH and Security Assessments
- ISO 14001 Registrations
- OHSAS 18001 Registrations
- Chemical Management System Inventory
- • Conduct of Operations Procedures
- Configuration Management of Safety Systems
- Group Feedback Meeting Reports
- • Human Performance Program
- Materials Inventory
- • Operations Procedures and Training
- Pre-Job Briefings and Plan of the Day
- Post-job Feedback
- Weekly Divisional and Group Meetings
- Weekly Time Meeting
- • Work Planning and Control Documents

Con Ops Linked ; i.e.,
Defense in Depth Approach



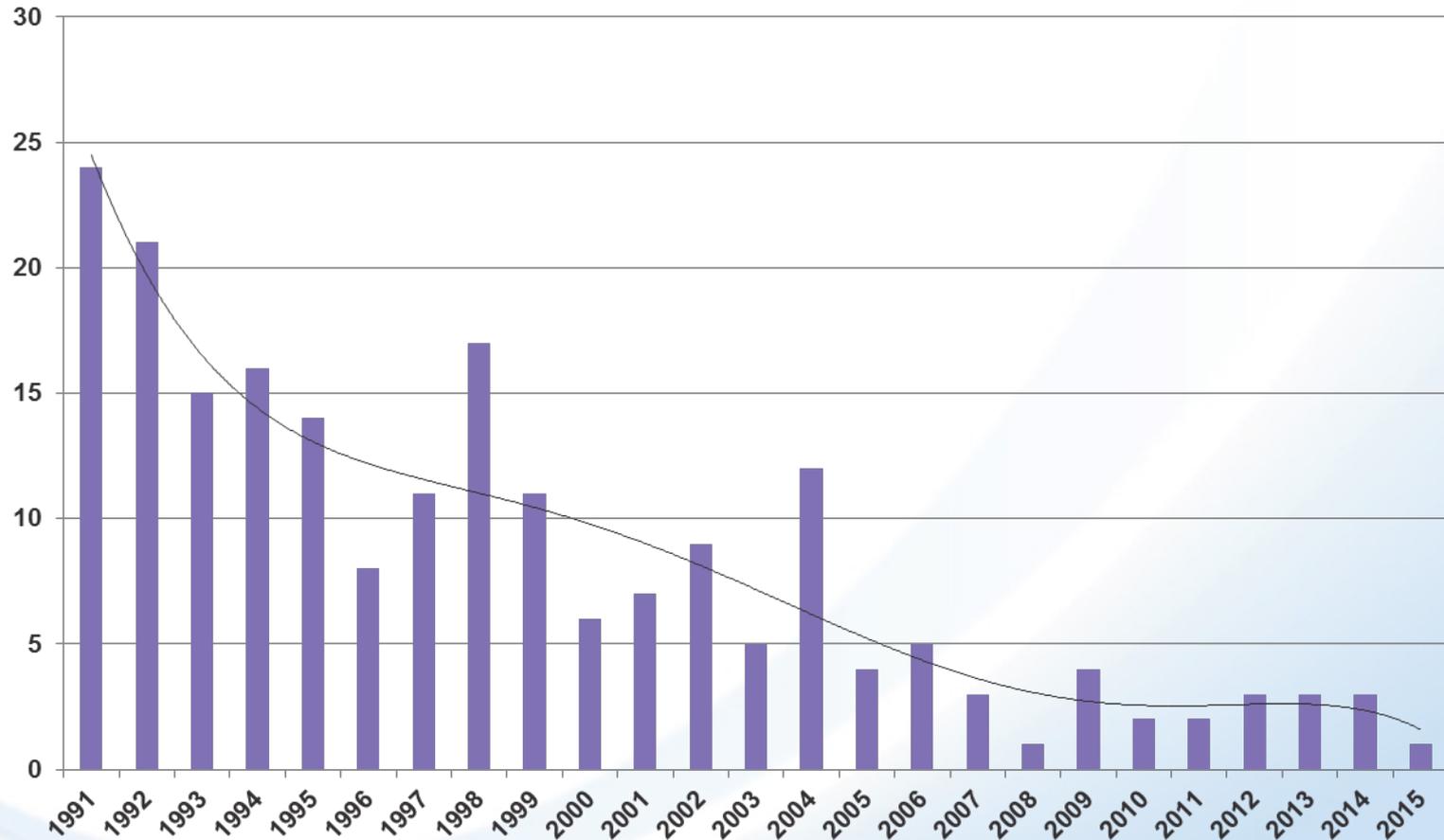
C-AD Operational Dose Trend and Beam Trends



- **Collective dose declines relative to increases in proton beam intensity as Con Ops promotes better system monitoring and performance resulting in less repair work on radioactive equipment**
- **Beginning in FY00, heavy ion program at RHIC contributes a small amount to collective-dose**

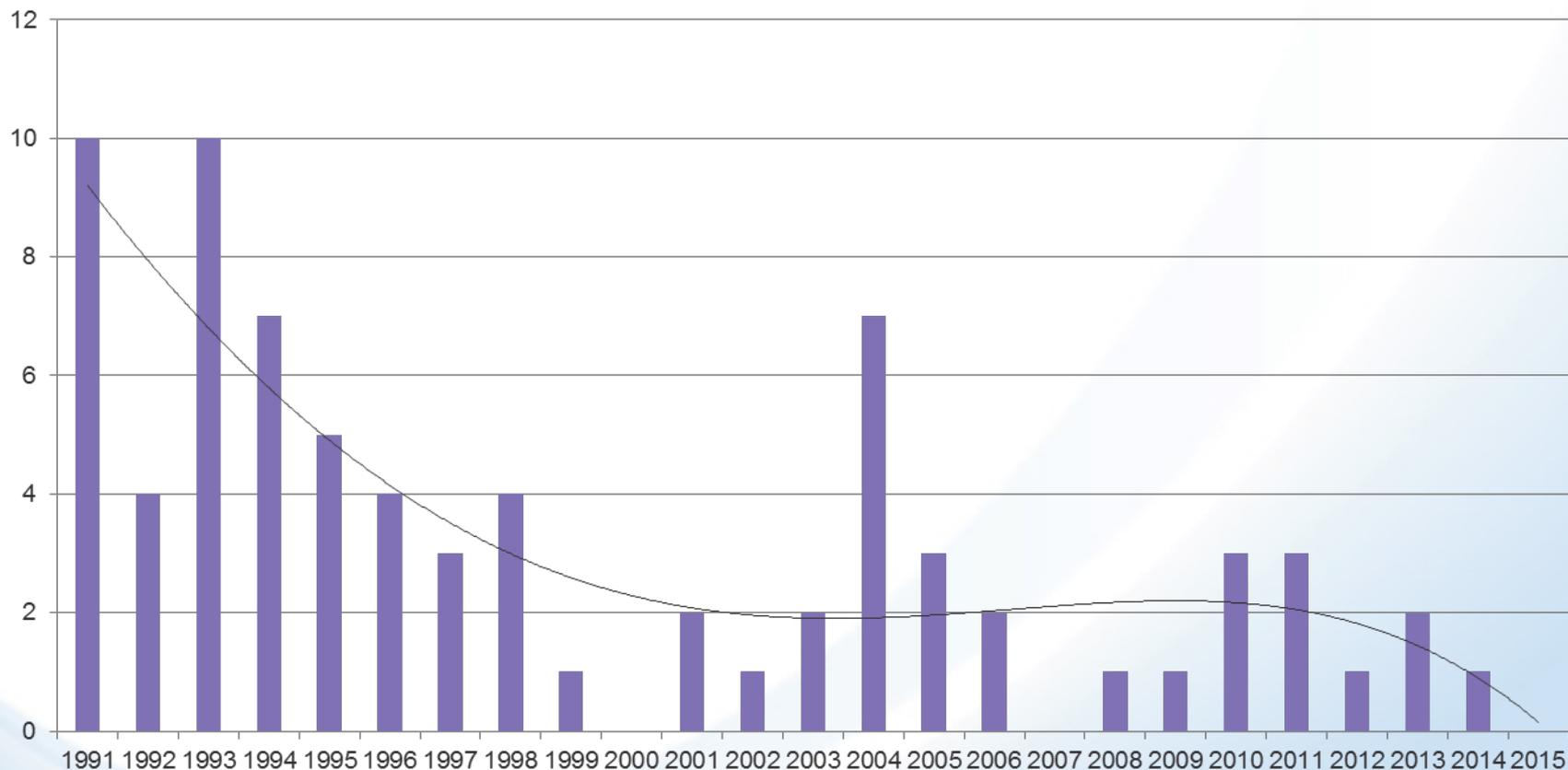
Collider-Accelerator Recordable Injury Record

Annual Recordable Injuries

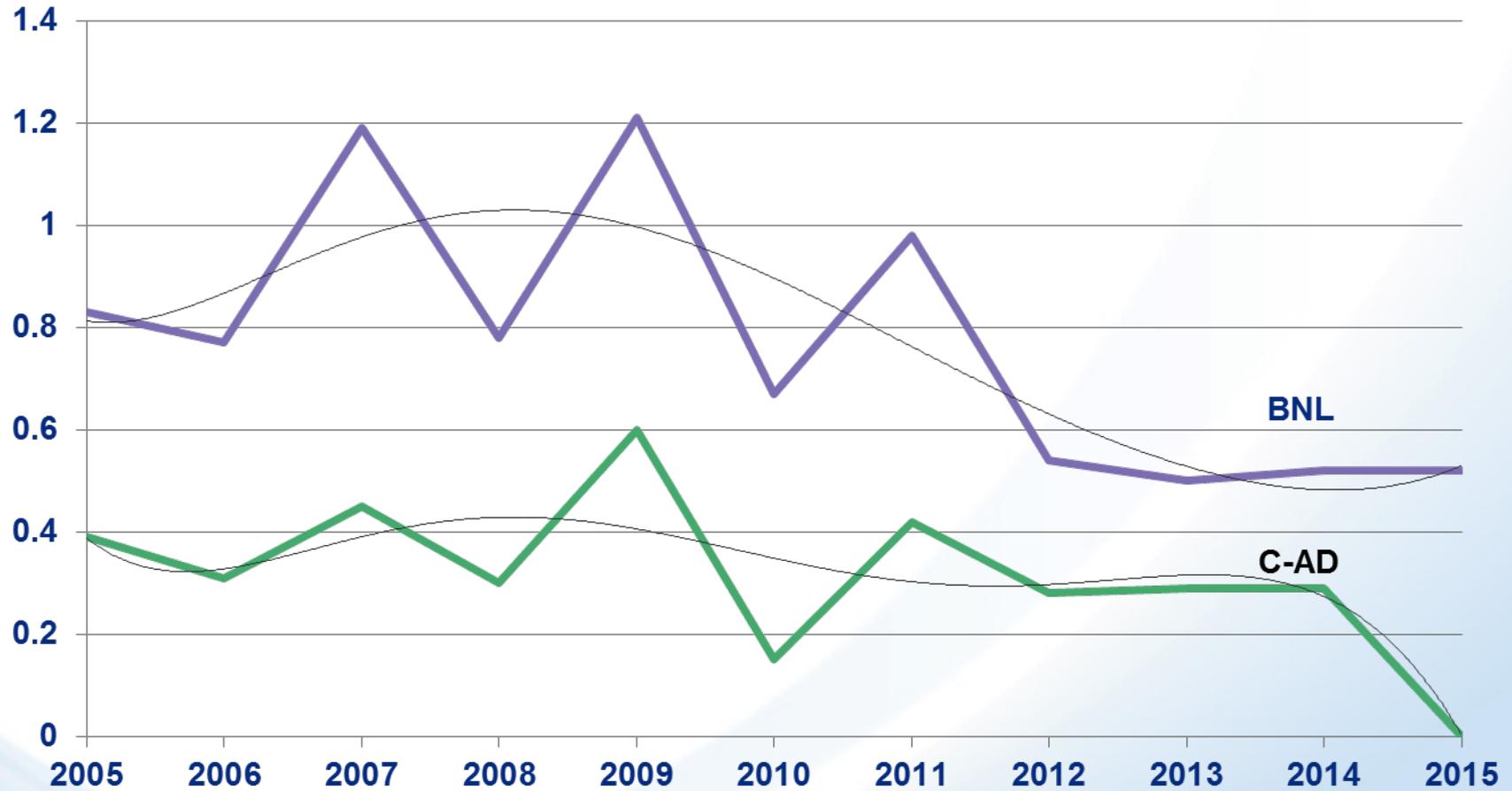


Collider-Accelerator Occurrences

Number of Occurrences Each Year

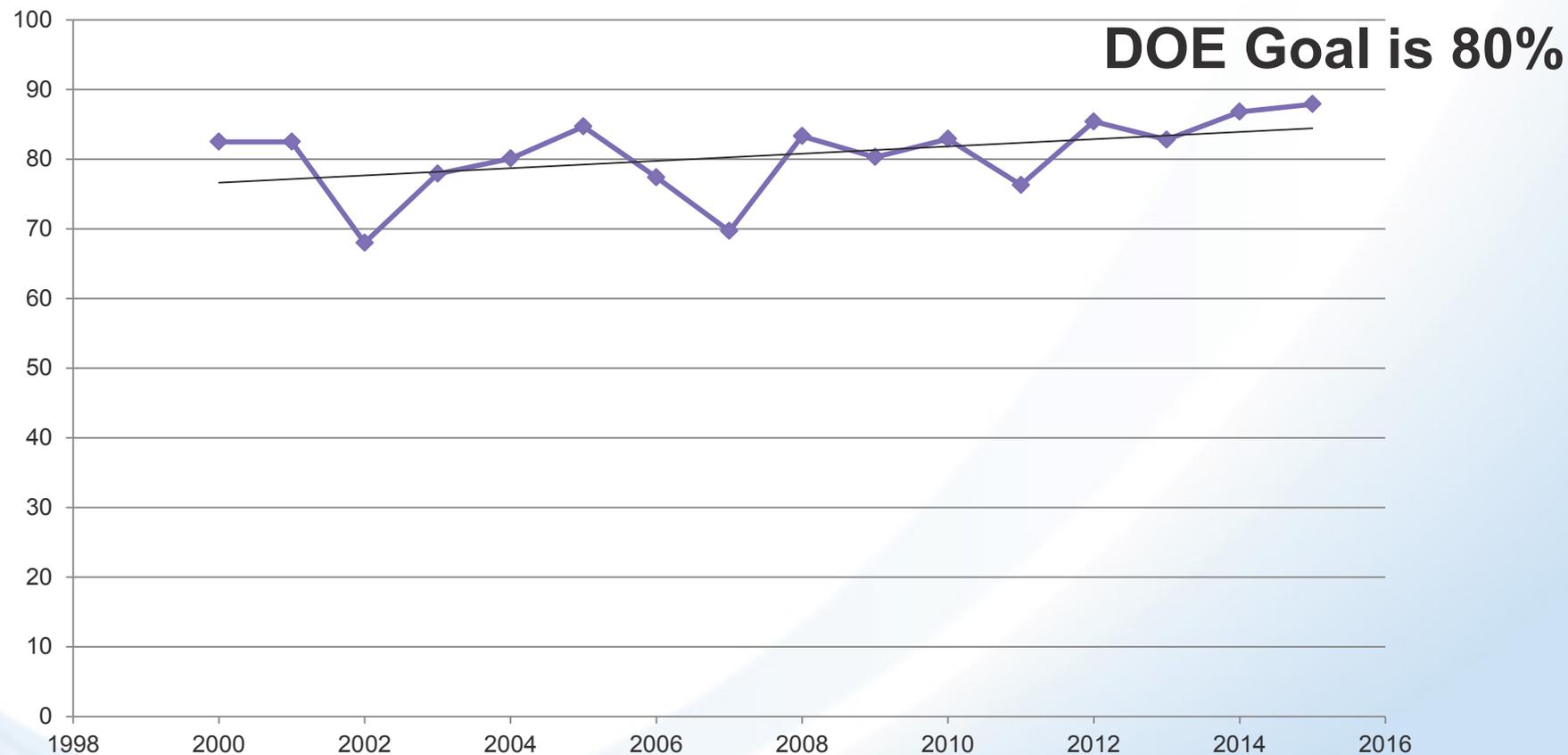


Collider-Accelerator DART Rate Comparison

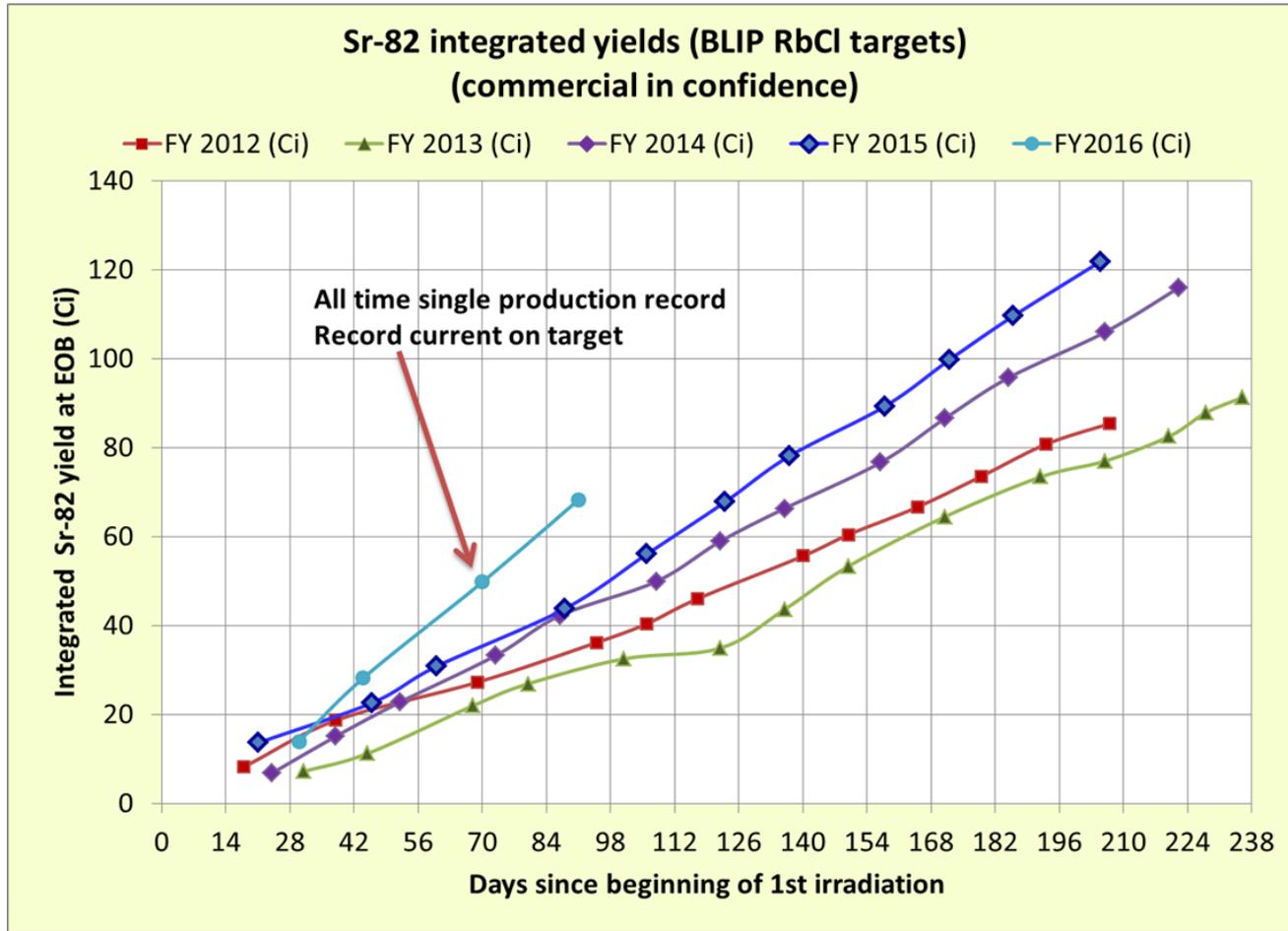


Business and Operational Results

% Availability of RHIC

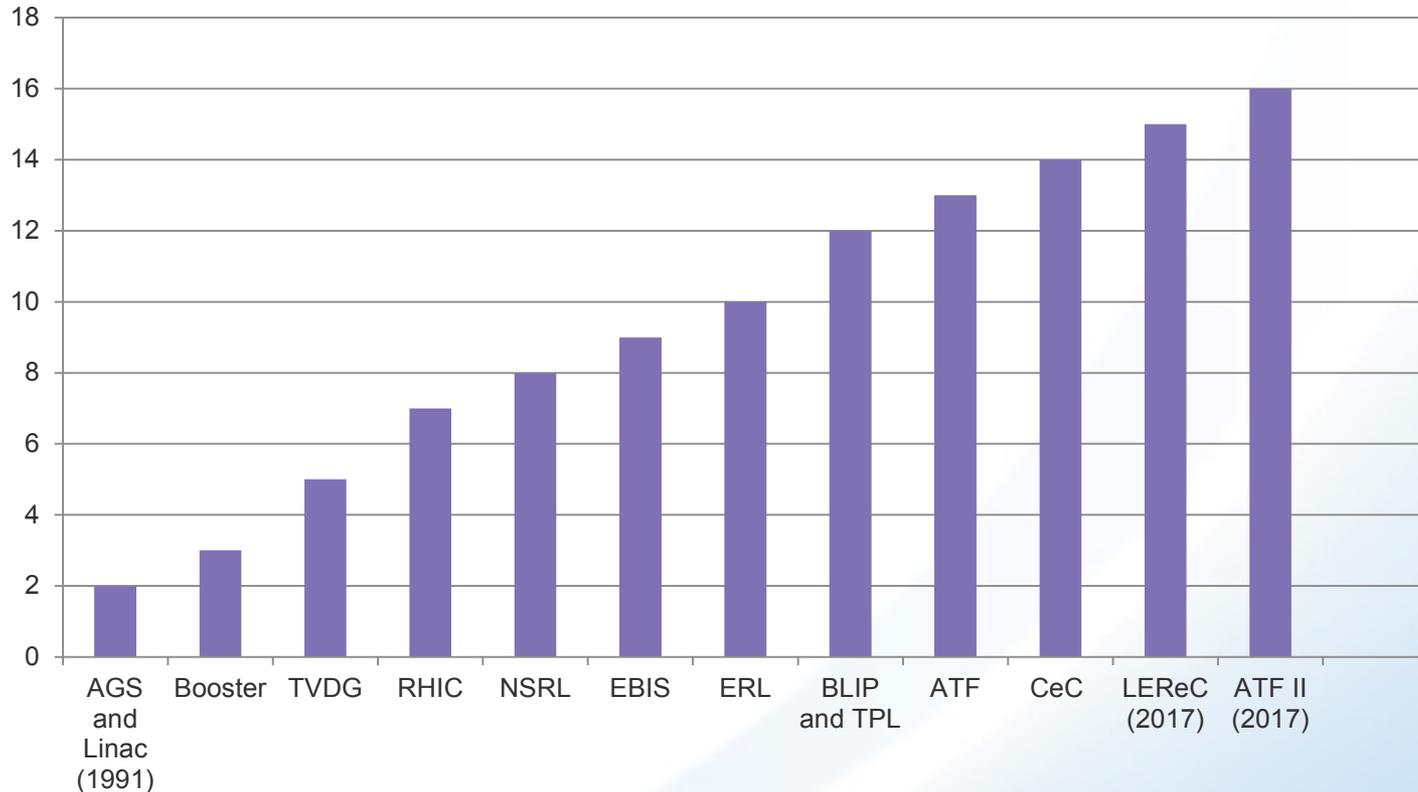


Business and Operational Results



Business and Operational Results

Growing Number of Accelerator Facilities at C-AD since 1991



Bottom Line: Two Areas Need Attention!

■ Government Vehicle Accidents

- FY16 at BNL: 8 out of 9 accidents are backing up accidents, 2 with cameras and 2 with spotters
- Distraction / inattention / mind focused on goal and not in the moment

■ Doors Blocked Open or Unlocked

- Warning signs posted on doors go unnoticed or are obscured when door is blocked open
- Theft and vandalism increase with unlocked doors