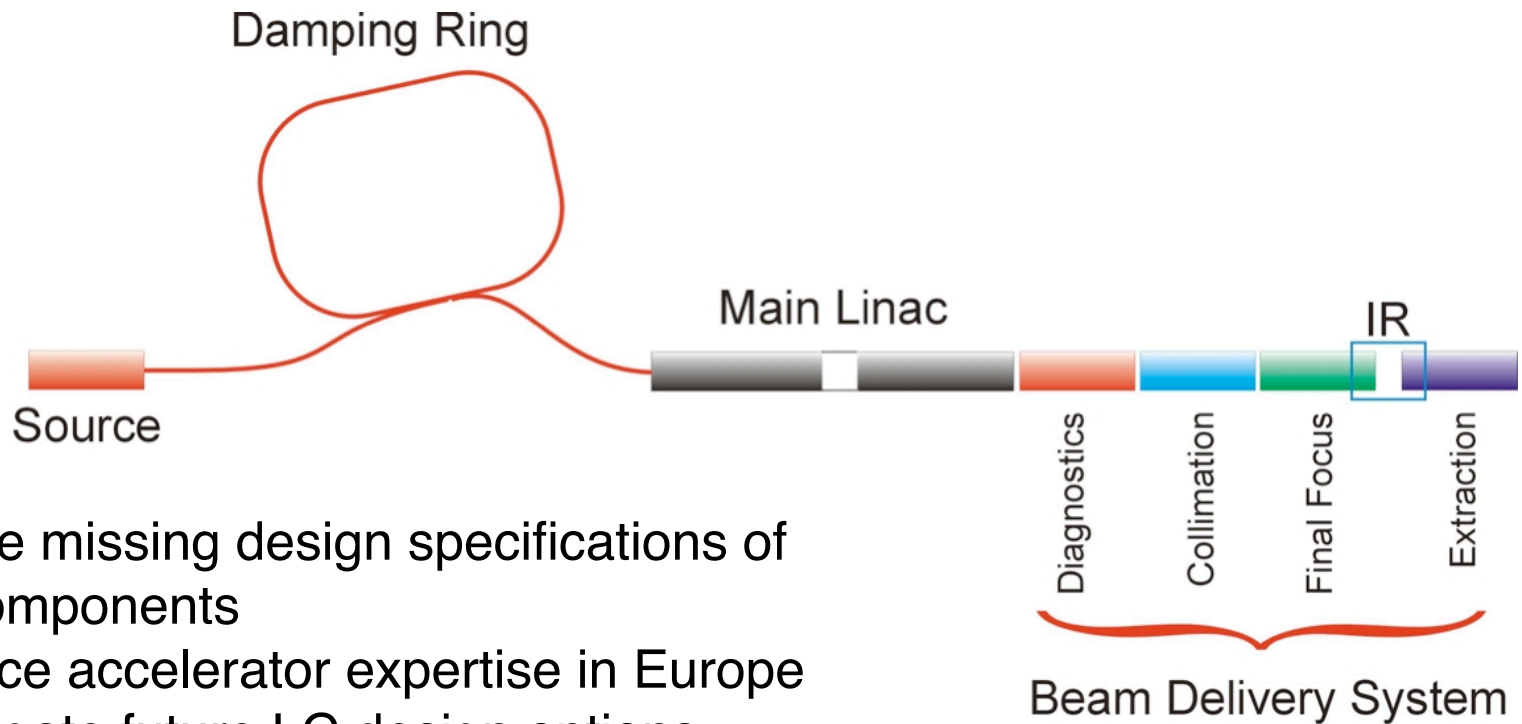


# European Study Towards a Global TeV Linear Collider



ECFA Linear Collider Workshop  
Durham, Sep 2004

# EUROTeV Design Study



## Goal:

- provide missing design specifications of ILC components
- advance accelerator expertise in Europe
- investigate future LC design options

- concentrate on topics that are (largely) independent of technology choice
- match the topics to the expertise available in the participating laboratories



# EU Framework Programme 6

*The EU's Framework Programme for Research and Technological Development is a major tool to support the creation of the European Research Area - ERA.*



Opportunity for Coordinated Accelerator research

3 calls with a total of 200 M€

- CARE  $\Rightarrow$  JRAs and network ELAN
- EUROTeV  $\Rightarrow$  Design Study
- ...

2nd call for design studies has been cancelled...

# Where do we stand?

- EUROTeV Proposal
  - Proposal has been submitted in March
    - 27 institutes
    - 29.1 M€, with 11.3 M€ requested
  - Referees saw *an outstanding proposal, complete and compelling in every regard*
  - Referees recommended 9 M€ EU support
  - Official letter from the EU in July follows the recommendations of the referees
  - Invitation to submit formal proposal by Sep 30, 2004 (else the proposal will be considered withdrawn)
  - 
  - EUROTeV Kick-off meeting, Nov 1, 2004, (sponsored by ELAN network)



# EUROTeV Work Packages & Institutes

Institute	WP1: MNGMNT	WP2: BDS	WP3: DR	WP4: PPS	WP5: DIAG	WP6: ILPS	WP7: METSTB	WP8: GANMVL
CCLRC	X	C	X	C			X	
CEA		X						
CERN	C	X	X		X	C		
DESY	C		X	X	X	X	X	C
ELETTRA								X
FHG								X
GSI								X
INFN-LNF	X		C					X
INFN-MI								X
INFN-Ro2								X
IPPP				X				
LAL					X	X		
LAPP	X						C	
PSI						X		
QMUL		X				X		
RHUL	X				C	X		
TEMF,TUD		X						
UBER				X				
UCAM					X			
UCL					X			
ULANC		X						
ULIV				X				
UMA		X				X		
UMH								X
UNIUD								X
UOXF.DL					X		X	
UU					X	X		

**BDS:**

Beam delivery

**DR:**

Damping rings

**PPS:**

Polarised positron source

**DIAG:**

Diagnostics

**ILPS:**

Luminosity Performance

**METSTB:**

Metrology & stabilisation

**GANMVL:**

Accelerator network

# EUROTeV Referees concluded:

- European Added Value
  - maximal
- Science & Technology Excellence
  - well laid out milestones
  - details of implementation depends critically on ITRP decision
  - specifically: Global Accelerator Network (GAN)
    - represented by members that are on the vanguard of development for distributed control rooms around the world
- Relevance
  - truly new infrastructure for research
- Overall
  - outstanding
  - prepares for European participation in ILC
- Recommendation (9 M€)
  - negotiate scope once ITRP decision available
  - work towards earliest possible realisation of the ILC

# International Aspects

- ITRP have concluded
  - SCRF technology to be used for the International Linear Collider (ILC)
- Global Design Initiative soon to be formed
  - optimisation of worldwide research programme is just commencing
  - 
  - EUROTeV assembles considerable resources initially
  - Consider fine-tuning the proposed EUROTeV programme in accordance with global research programme
- 
- EUROTeV proposal due Sep 30, 2004
  - funds not before 2005



# EUROTeV Tasks (status as of bid)

## EUROTeV WORK PACKAGES & TASKS

(EXCEPT MNGMNT)

<b>BDS</b> S.SMITH	<b>DR</b> S.GUIDUCCI	<b>PPS</b> A.STAHL	<b>DIAG</b> G.BLAIR	<b>ILPS</b> D.SCHULTE	<b>METSTB</b> Y.KARYOTAKIS	<b>GANMVL</b> F.WILLEKE
BDSLD	ECLOUD	HURD	CFBPM	FMSIM	RTRS	ODI
CRABRF	RFSEP	PHCOL	LBPM	HTGEN	MSTBT	SC
FFBK	LETS	PPTARG	CAVBPM	HCOLSIM	PGMS	ME
SWMD	WGLRDYN	PPMODL	ESPEC	HALOBKG		DGF
SCFD		SPINF	HEPOL	BCDES		
		SPTRNS	TPMON	PCDL		
		LEPOL	WBCM	BBSIM		
			FLUM	LETSTAT		
				LETFDBK		
				LETILPS		



# EUROTeV Consolidation Process

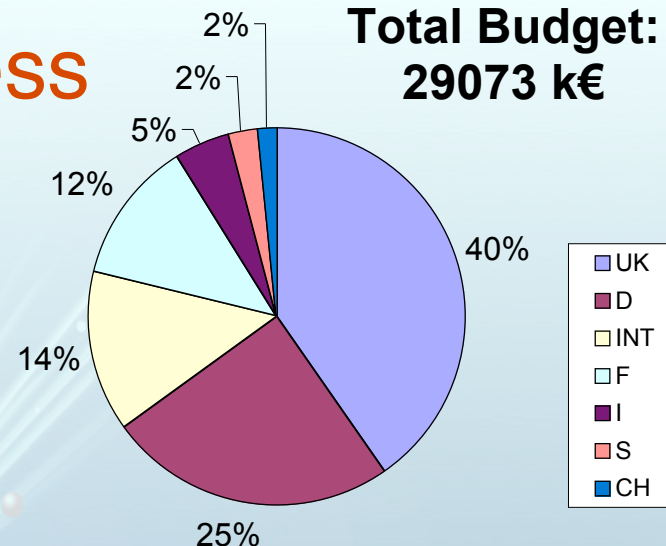
**Total Budget:  
29073 k€**

- **Budget**

- reduce 11.3 M€ to 9 M€
- maintain scope
- increase institute involvement

- **Scope**

- review programme now that technology is known
  - optimise Work Packages
  - involve other regions
    - G Dugan (Cornell)
    - M Ross (SLAC)
    - T Takasaki (KEK)
    - A Wolski (LBL) specifically for DR

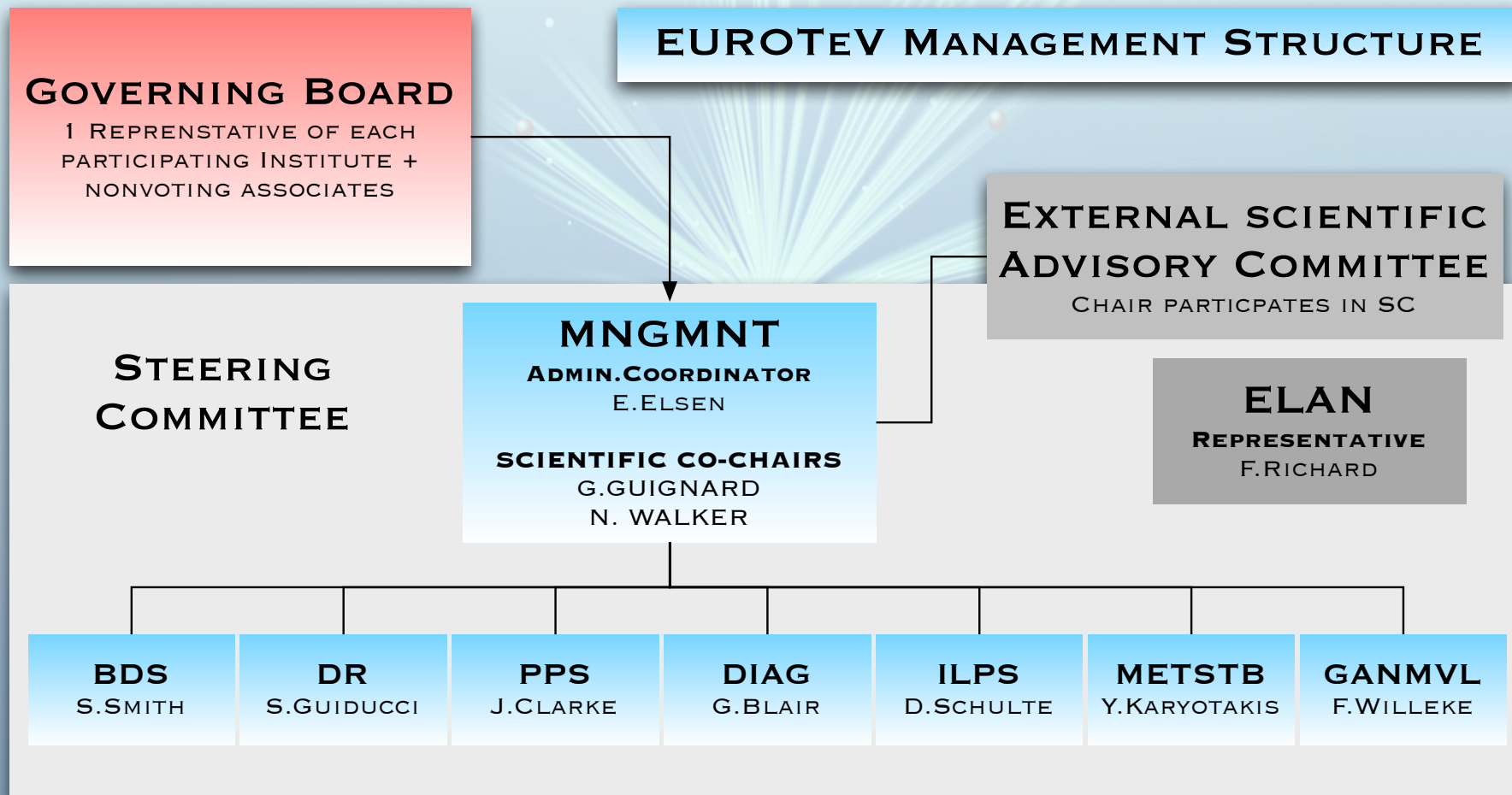


*EUROTeV advisors in the  
consolidation phase*

- EUROTeV open meeting Sep 13, 2004 at CERN



# EUROTeV Management Structure





# Conclusion

- HEP worldwide
  - have demonstrated ability to join forces behind the next big physics tool
  - are willing to optimise resources and to take difficult choices
- European laboratories...
  - have given evidence for a considerable interest in swiftly completing the remaining research towards the ILC
  - have been able to allocate considerable resources around a Design Study that will help to advance the required research
  - have exposed the ILC to the highest European political levels
- To be done
  - integration into worldwide effort
  - continue to join the pieces of the global puzzle...
  - ...and build the ILC