EDR Baseline Milestones and Timeline

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Nominal Source Parameters

Parameter	Symbol	Value	Units
Bunch Population	N_b	$2x10^{10}$	#
Bunches per pulse	n_b	2625	#
Bunch spacing	t_b	369	ns
Pulse repetition rate	f_{rep}	5	Hz
Injection Energy (DR)	E_0	5	GeV
Beam Power (x1.5)	P_o	300	kW
Polarization e-(e+)	P	80(30)	%

ILC Polarized Electron System Technical Milestones (A. Brachmann)

- 1. demonstrate ILC source laser system at least at a 'proof of
- principle' level

- 2. demonstrate photocathode performance
- - extraction of bunchtrain using ILC laser system,
- - polarization ~ 90%,
- - QE 0.5 - 1 %)

- 3. complete technical design of bunching system (SHB's, L-band TW)

- 4. complete technical design of polarized gun (200 kV design)

- 5. complete system engineering for NC source beam line layout

ILC Electron Source EDR Milestones

- Dec 07: EDR Scope definition: design depth and breadth, cost, schedule, staff
- Dec 09: Freeze layout, full component and civil specifications
- Jan 09: EDR detailed component inventory
- May 09: First cost review
- Dec 09: Deliver EDR and preconstruction work plan

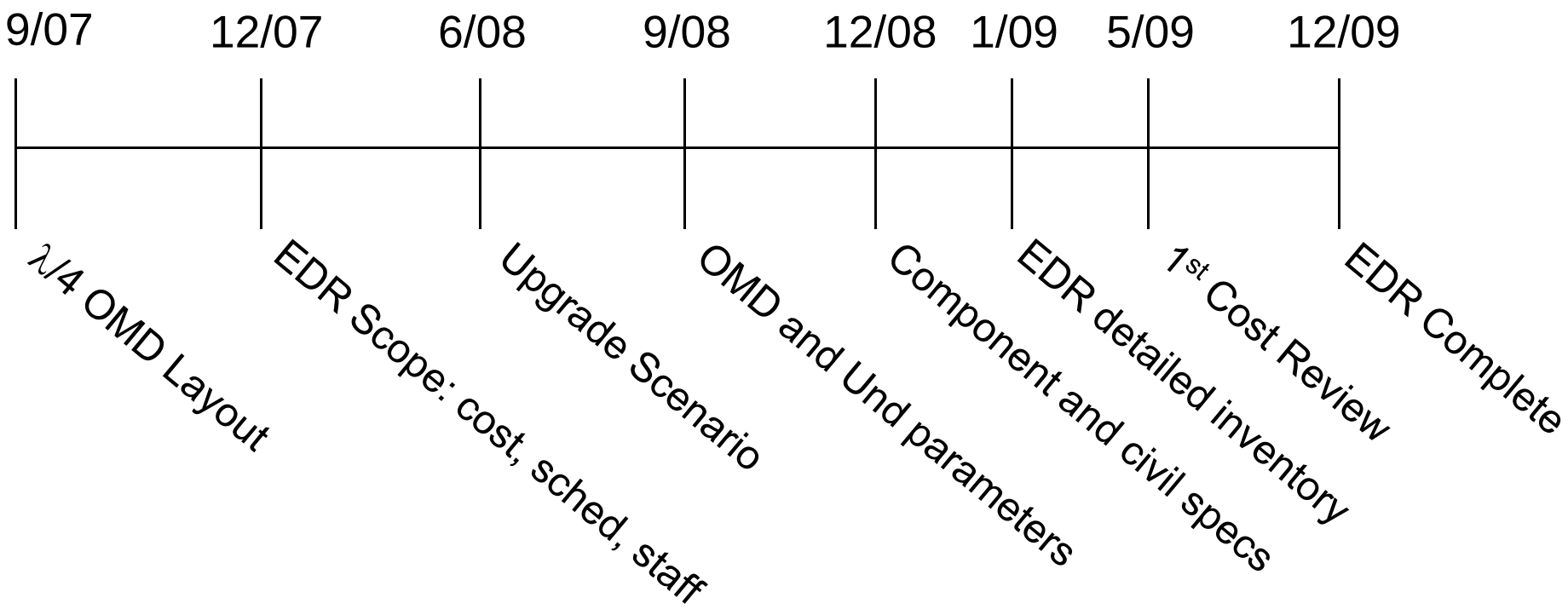
ILC Polarized Positron System Technical Milestones

- 1. Demonstrate undulator parameters
- 2. Demonstrate NC SW structure hi power rf performance
- 3. Spinning target pre-prototype demonstration
- 3. Eddy current measurements on spinning target
- 4. Selection and Technical design of Optical Matching Device
- 5. System engineering for e+ source remote handling
- 6. System engineering for photon dump
- 7. System design compatibility with ILC upgrade scenarios: polarization and energy

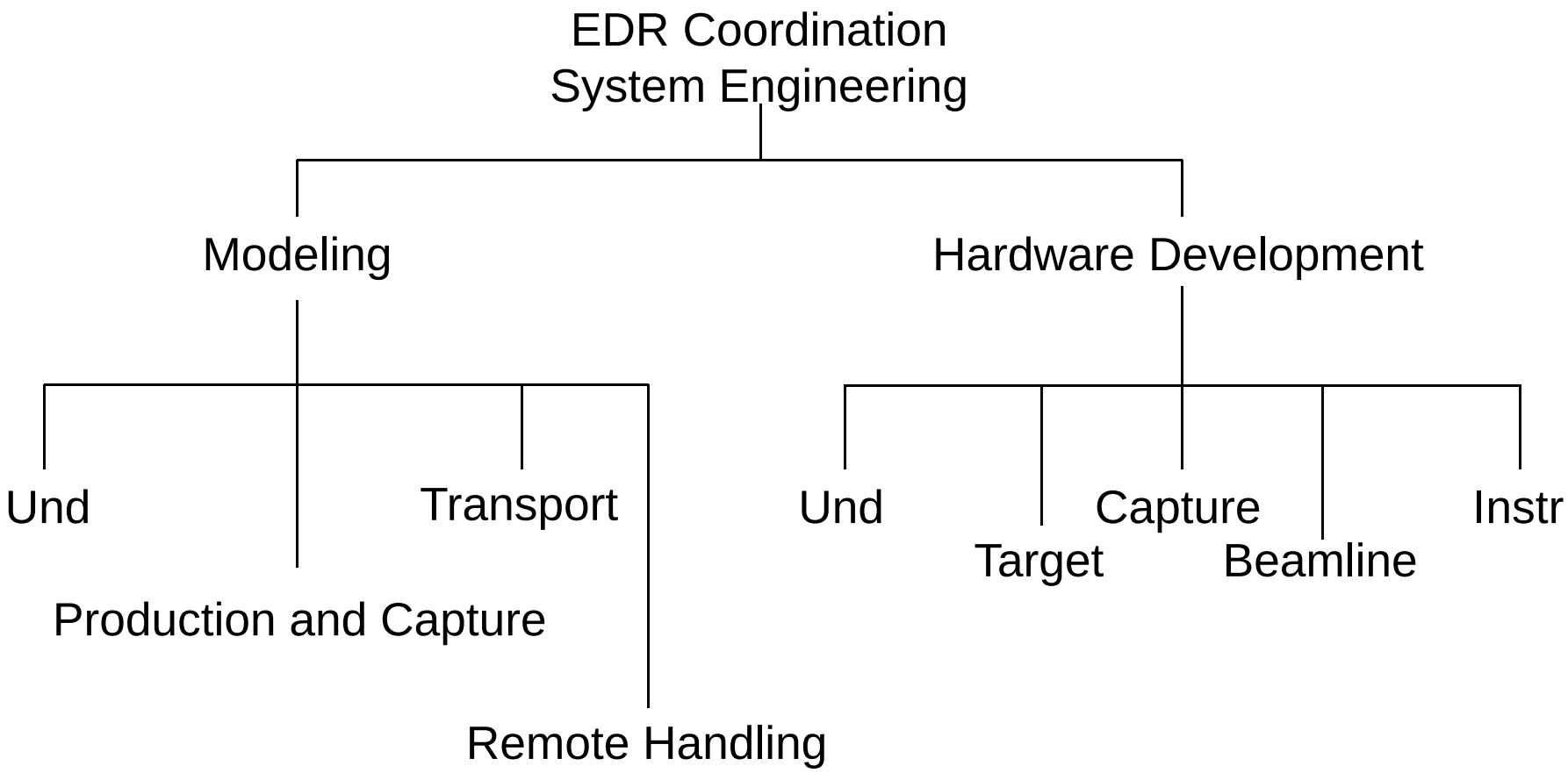
ILC Positron EDR Milestones/Timeline

- Sep 07: Full layout with λ/4 XMFR OMD
- Dec 07: EDR Scope definition: design depth and breadth, cost, schedule, staff
- Jun 08: Full upgrade scenario: polarization and ILC energy
- Sep 09: OMD selection (dc immersed, pulsed FC, λ/4 XMFR), Und parameter selection
- Dec 09: Freeze layout, full component and civil specifications (yield, overhead, remote handling, upgrades)
- Jan 09: EDR detailed component inventory
- May 09: First cost review
- Dec 09: Deliver EDR and preconstruction work plan

ILC Positron System EDR Timeline/Milestones



ILC Positron System EDR Work Packages (draft)



Work Package Development for 12/07

Assign WP Leader (Institution/Individual)

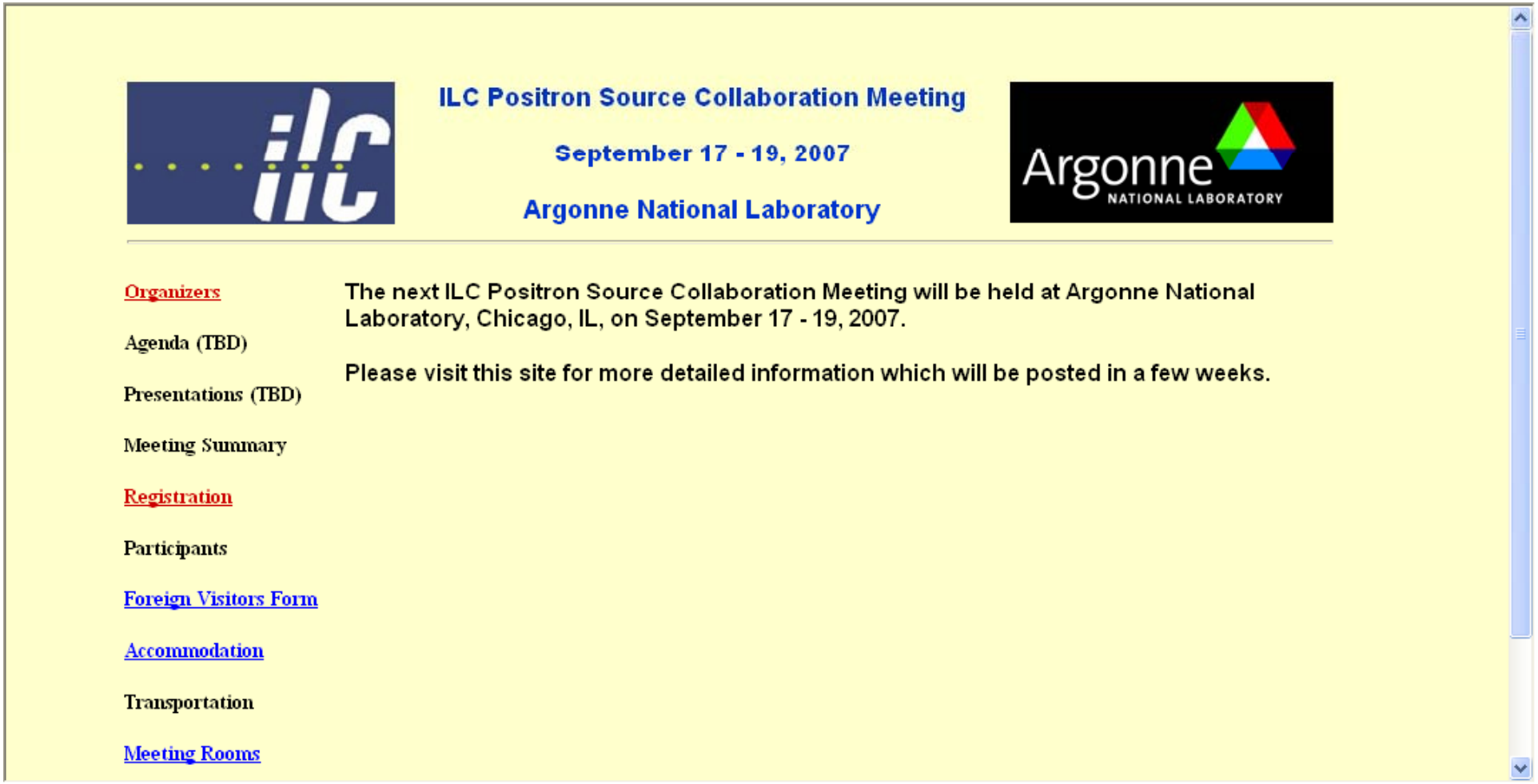
Define Deliverable

Identify Resources

Discuss at ANL September ILC e+ Collaboration Meeting

Complete WP Definition by December, 2007

ILC Positron System Collaboration Meeting, Sep, 2007



ILC Positron Source Collaboration Meeting

September 17 - 19, 2007

Argonne National Laboratory

Organizers

Agenda (TBD)

Presentations (TBD)

Meeting Summary

Registration

Participants

Foreign Visitors Form

Accommodation

Transportation

Meeting Rooms

The next ILC Positron Source Collaboration Meeting will be held at Argonne National Laboratory, Chicago, IL, on September 17 - 19, 2007.

Please visit this site for more detailed information which will be posted in a few weeks.

https://www.hep.anl.gov/ILC-positron/