

FROM RESEARCH TO INDUSTRY

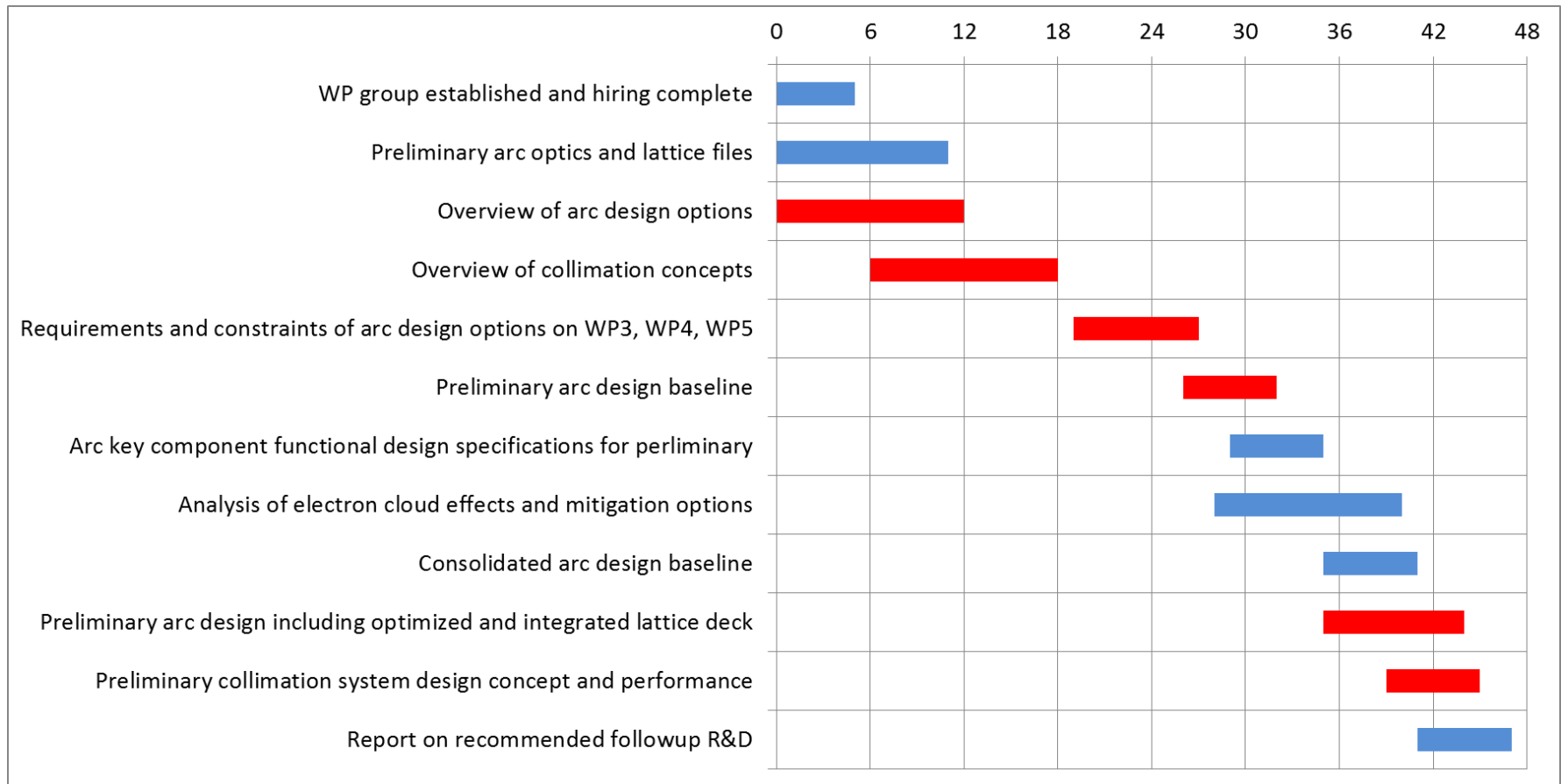


WP 2: ARC DESIGN AND LATTICE INTEGRATION

EuroCirCol kick-off meeting 3-4 June 2015 | Antoine CHANCE

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- To discuss the strategy for the different tasks.
- To know how we start to arrive to the right destination
 - Work plan for the next 6 months
 - WP2 meeting at end of November

- **14:00 - 15:30 Work for the Extended Straight Section**
 - 14:00 Welcome (Antoine CHANCE, CEA)
 - 14:15 Collimation (Maria FIASCARIS, CERN)
 - 14:30 Review on the collimation optics (Antoine LACHAIZE, IPNO)
 - 14:45 Extraction section optics (Wolfgang BARTMANN, CERN)
 - 15:00 Discussions
- **16:00 - 17:30 Common session, basic parameters**
 - 16:00 Status and needs for the dynamic aperture calculations (Barbara DALENA, CEA)
 - 16:20 WP3 (Experimental Insertion Region Design)
 - 16:40 WP5 (High Field Accelerator Magnet Design)
- **18h30 Welcome drink at the restaurant 1 (Glass box)**



- **09:00 - 10:30 Common session, WP2 WP4**
 - 09:00 Aperture definition of the beam pipes (TBD)
 - 09:20 Electron cloud status (Lotta METHER, CERN)
 - 09:40 Impedance status (Oliver BOINE-FRANKENHEIM, TUD)
 - 10:00 Discussions
- **11:00 - 12:30 Common session, WP2 WP3**
 - 11:00 Status of the IR optics (TBD)
 - 11:20 Collimation in the IR (TBD)
 - 11:40 Interface between the DIS and the IR (Antoine CHANCE, CEA)
 - 12:00 Discussions
- **14:00 - 15:30 WP2, 2nd session**
 - 14:00 Status and plans of the arc and of the optics integration (Antoine CHANCE, CEA)
 - 14:20 Work repartition
 - 15:00 Tentative planning
- **16:00 - 17:30 Plenary discussion**
 - 16:00 WP2 summary
 - 16:15 WP3 summary
 - 16:30 WP4 summary
 - 16:45 WP5 summary



Description	Month
<p>D-2.1: Overview of arc design options Description of arc design options and collider layouts to be taken into consideration for further detailed studies. Summary of the relative merits, requirements, constraints and impacts of each of the options to be considered. Classification according to estimated value and realization risk.</p>	12
<p>D-2.2: Overview of collimation concepts Description of collimation system concept options to be taken into consideration for further detailed studies. Summary of the relative merits, requirements, constraints and impacts of each of the options to be considered. Classification according to merit and realization risk.</p>	18
<p>D-2.3: Requirements and constraints of arc design options on WP3, WP4, WP5 Estimates of requirements and limitations imposed by the options onto magnet field levels and qualities, intensity and energy limitations and physical constraints onto the experimental insertion region and onto the cryogenic beam vacuum system.</p>	27
<p>D-2.4: Preliminary arc design baseline Description of the arc baseline design including a list of beam-line elements (type, description, quantity, physical element characteristics). Description of the assumptions taken, requirements and constraints imposed onto the infrastructure and infrastructure services.</p>	32
<p>D-2.5: Preliminary arc design including optimized and integrated lattice deck Annotated beam optics and lattice files with specifications of the required magnet parameters (strengths and apertures) including consolidated position and element characteristics. Specification of the required magnet types and quantities including magnet field quality specifications.</p>	44
<p>D-2.6: Preliminary collimation system design concept and performance estimate Description of the collimation system baseline design including a list of beam-line elements (type, description, quantity, physical element characteristics). Description of the assumptions, requirements and constraints on the infrastructure and services. Summary of the expected performance.</p>	45