



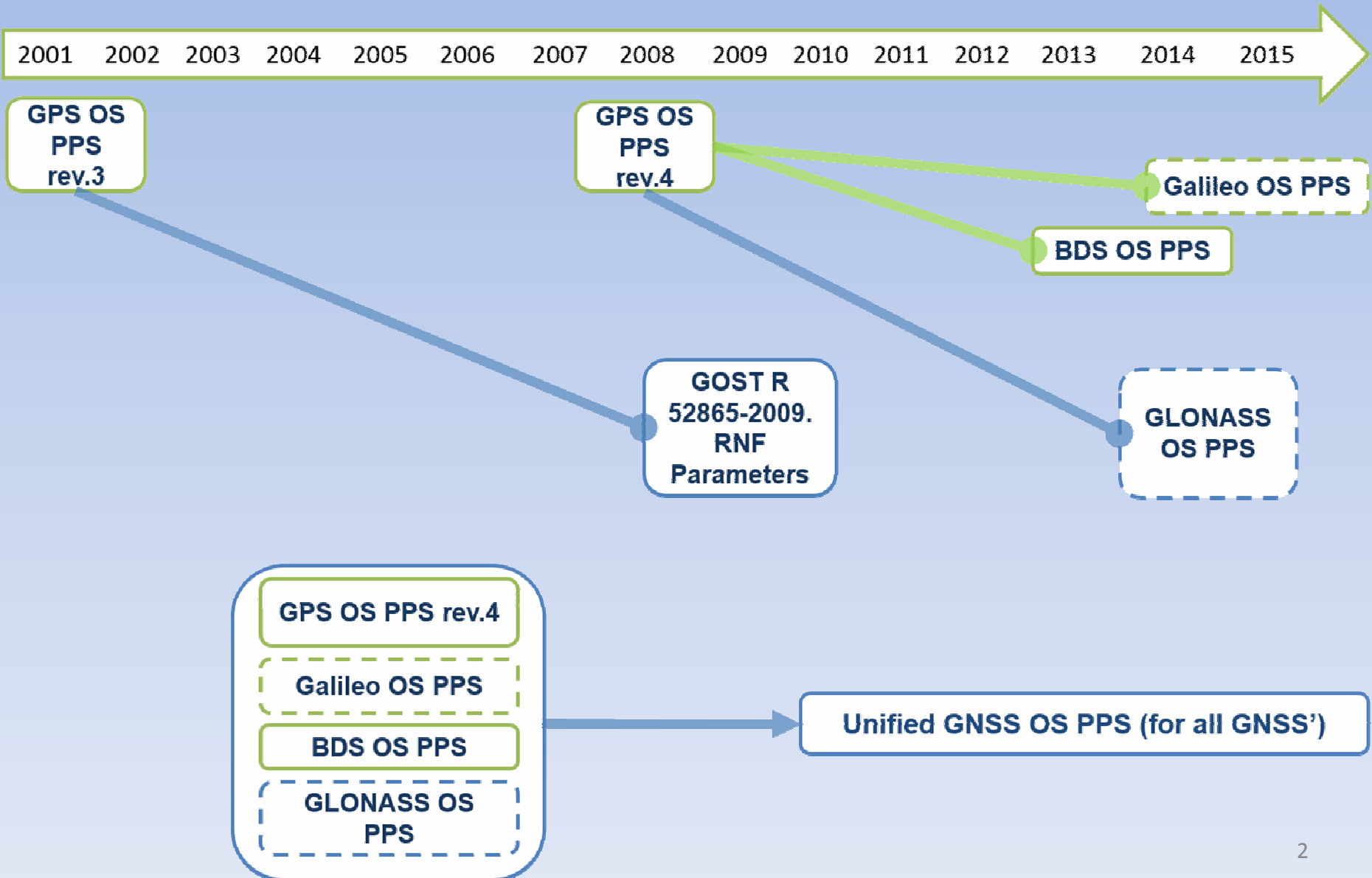
GLONASS and GNSS Performance Standards: Status and Plans

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Performance Standards Harmonization Trends





GLONASS OS PPS Status

- National Regulations Framework documents harmonization is finalized
- GLONASS OS PPS and GNSS unified OS PPS Template are harmonized
- Parameters calculation methods for GLONASS OS PPS Draft are developed and modified
- GLONASS SARPs section in ICAO is corrected according to GLONASS OS PPS
- **Internal approval procedure is in finalizing stage**



GLONASS Performance Parameters in GLONASS OS PPS Draft





GNSS OS PPS Status

- Current results:
 - Unified GNSS OS PPS Template
 - BDS OS PPS
 - Galileo OS PPS in progress
 - GLONASS OS PPS being finalized
 - Parameters calculation methods in accordance with GPS OS PPS and GNSS OS PS Template



GNSS OS PPS Development Major Problems

- Organizational level
 - Formal goals and objectives of GNSS OS PPS in general, development roadmaps, scorecards, tracking progress, certain persons, their functions and responsibilities
- Technical level
 - Parameters list, parameters definitions, calculation methods
 - Monitoring issues (reference data, networks, navigation equipment, ...)
- Both levels
 - Participants activity during last years
 - Results



Connection with IGMA Activities

- IGMA's problems:
 - Organizational (no document defining IGMA's role, goals and activities agreed by all participants)
 - Technical (no monitoring parameters list, no calculation methods and so on)

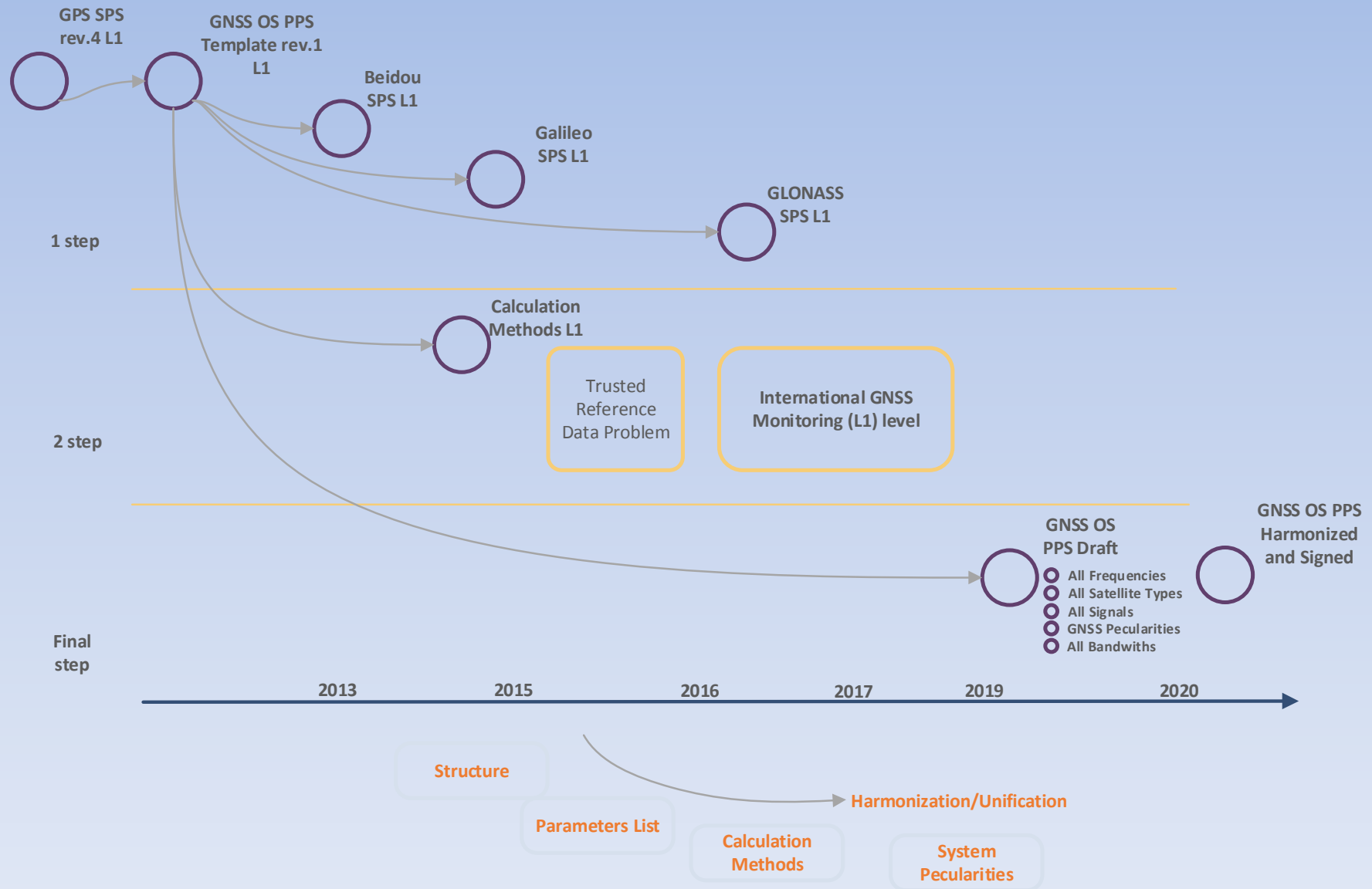


Way Forward

- On organizational level
 - To make a decision on ICG/Providers forum level on do we really need an GNSS OS PPS
 - To make and to approve a formal document on ICG/Providers forum level defining goals and objectives of GNSS OS PPS in general, development roadmaps, scorecards, tracking progress, certain persons, their functions and responsibilities
 - To modify current Standards WG structure to meet above requirements
- On technical level
 - To make an agreement on GNSS OS PPS structure and further development
 - To make an agreement on short parameters list and their definitions to be included in GNSS OS PPS
 - To make an agreement on calculation methods



GNSS OS PPS Development Roadmap





Summary

- We have some results during these years like:
 - Unified GNSS OS PPS Template
 - BDS OS PPS
 - Galileo OS PPS
 - GLONASS OS PPS being finalized
 - Parameters calculation methods in accordance with GPS OS PPS and GNSS OS PS Template
- But we face problems that we are not even trying to solve or doing it very slow like:
 - Lack of formal goals and objectives of GNSS OS PPS in general, development roadmaps, scorecards, tracking progress, certain persons, their functions and responsibilities
 - Lack of agreed parameters list, parameters definitions, calculation methods
 - Monitoring issues (reference data, networks, navigation equipment, ...)
 - Lack of results and activity
 - But still we have an opportunity to solve them
 - To make a decision on ICG/Providers forum level on do we really need an GNSS OS PPS
 - To make a formal document on ICG/Providers forum level defining goals and objectives of GNSS OS PPS in general, development roadmaps, scorecards, tracking progress, certain persons, their functions and responsibilities
 - To modify current Standards WG structure to meet above requirements
 - To make an agreement on GNSS OS PPS structure and further development
 - To make an agreement on short parameters list and their definitions to be included in GNSS OS PPS
 - To make an agreement on calculation methods



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