

Managing Severance Impacts in Linear Infrastructure: Lessons from the 1915 Canakkale Bridge and Motorway Project



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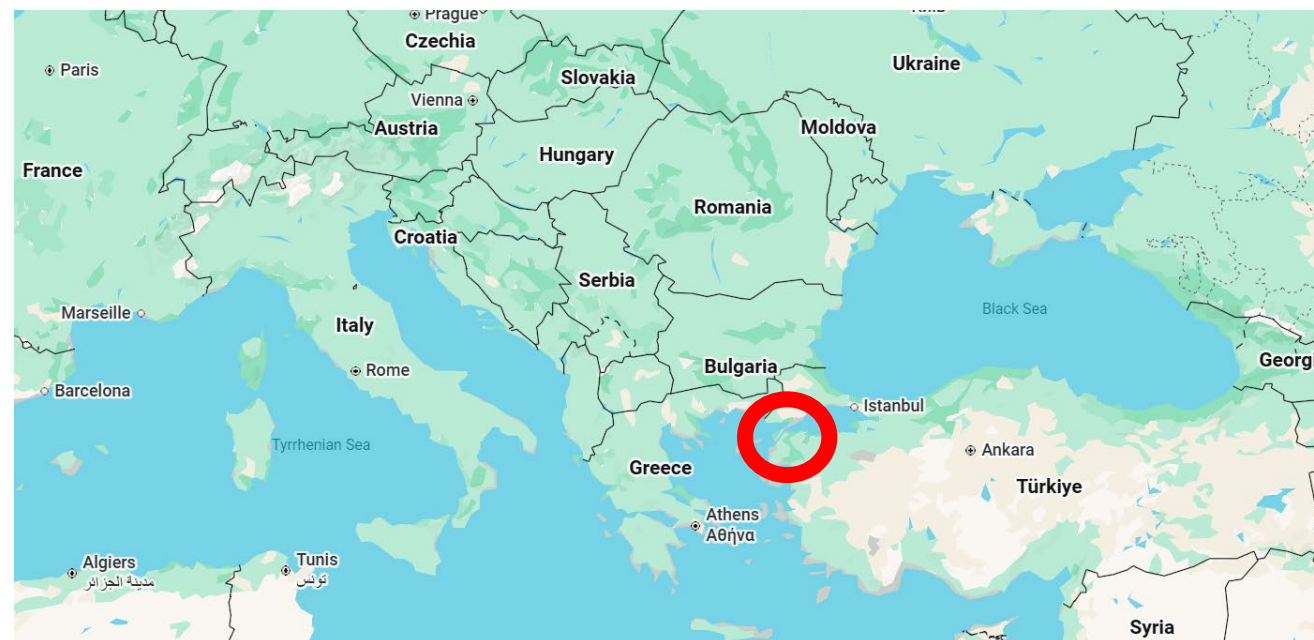
Agenda

1. The Project
2. Timeline
3. Project Phases
 - 3.1. Development
 - 3.2. Impact Assessment
 - 3.3. Design
 - 3.4. Construction
 - 3.5. Operation
4. Conclusion

1. The Project

1915 Canakkale Bridge and Motorway Project

- PPP Project
- Central section of 325km Motorway
- Internationally financed
- Equator Principles and IFC PS driven
- ECAs and commercial banks involved.



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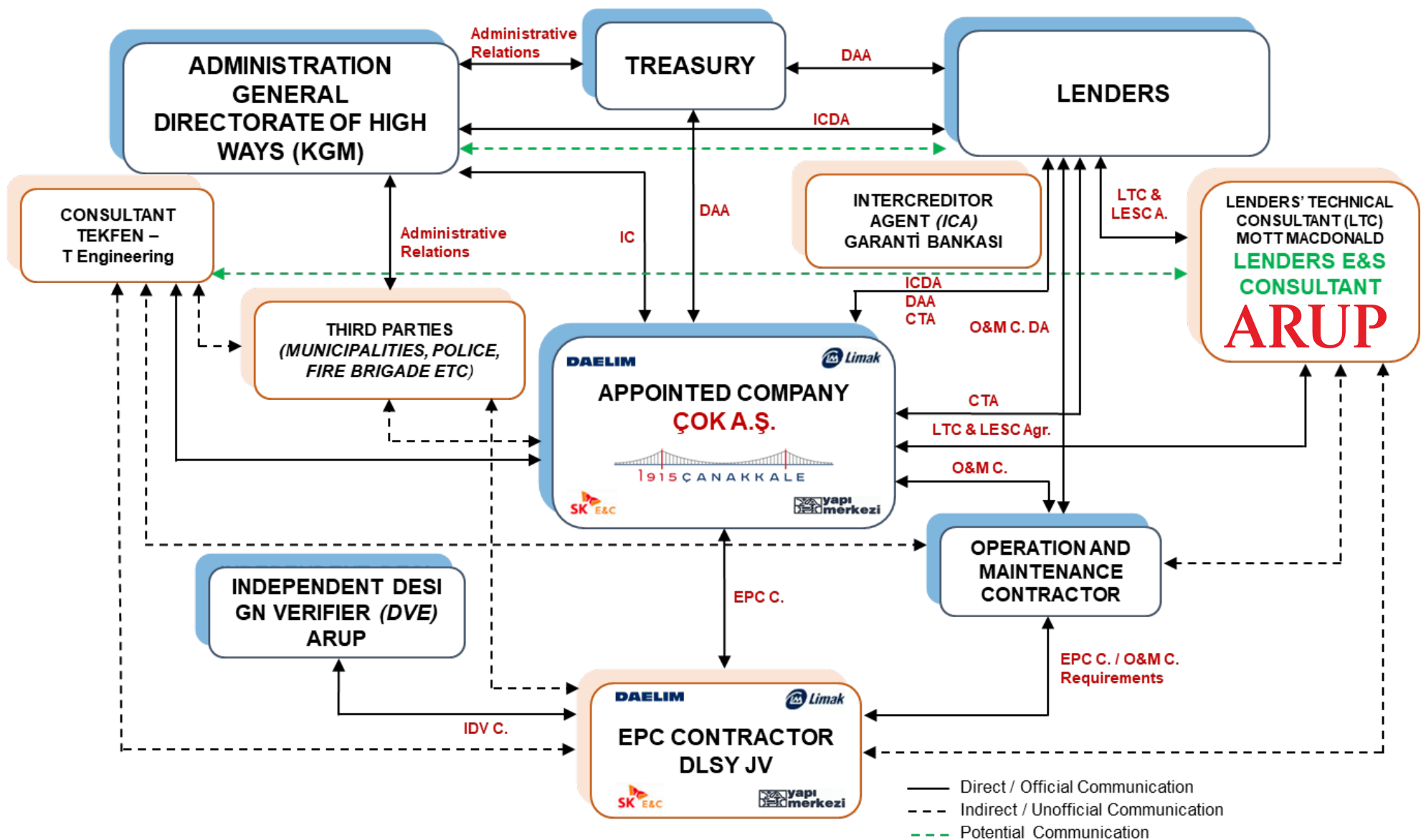
- 88 Km motorway
- 6 interchanges
- 5km bridge
- Longest span suspension bridge
- Fully fenced motorway
- 140km/h speed limit







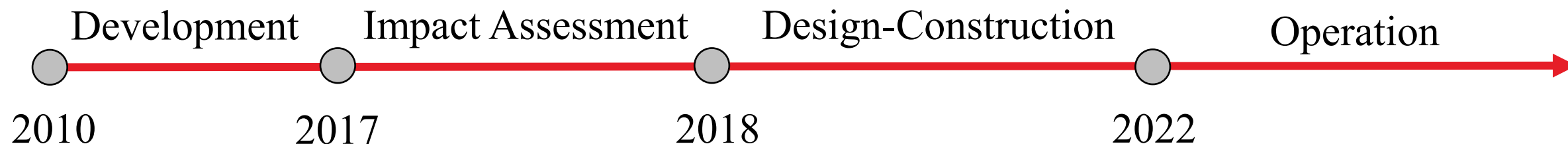
Organisational Structure



2. Timeline

Project Timeline

Severance Impact assessed and managed during all phases



3. Project Phases

Development-2010

- Developed by Ministry of Transport
- Limited resources
- Local consultants
- Limited technical studies
- Lack of reliable public data
- No land user consultation
- Low influence of local EIA
- Local standard, regulation-based process



Impact Assessment-2017

- PPP tender on March 2017.
- ESIA between April 2017-March 2018.
- Stronger influence on Project but limited flexibility.
- Limited implementation budget.



Impact Assessment-2017

- Severance impacts identified on:
 - Forests: Culverts and ecological bridges where required.
 - Water: Culverts and bridges where required.
 - Farmlands: Underpasses, overpasses to provide access.



Impact Assessment-2017

- Based on preliminary design. Hard to carry out site specific assessment.
- Magnitude of severance impact could be assessed more in detail, too much relied on implementation.
- No site-specific information shared with public due to land acquisition speculations.



Design-Construction

- Heavy reliance on design standards and base maps.
- Very limited site verification by design team.
- Limited engagement with other departments (construction, H&S, environment, social etc.)
- Lack of attention from users until impact occurred

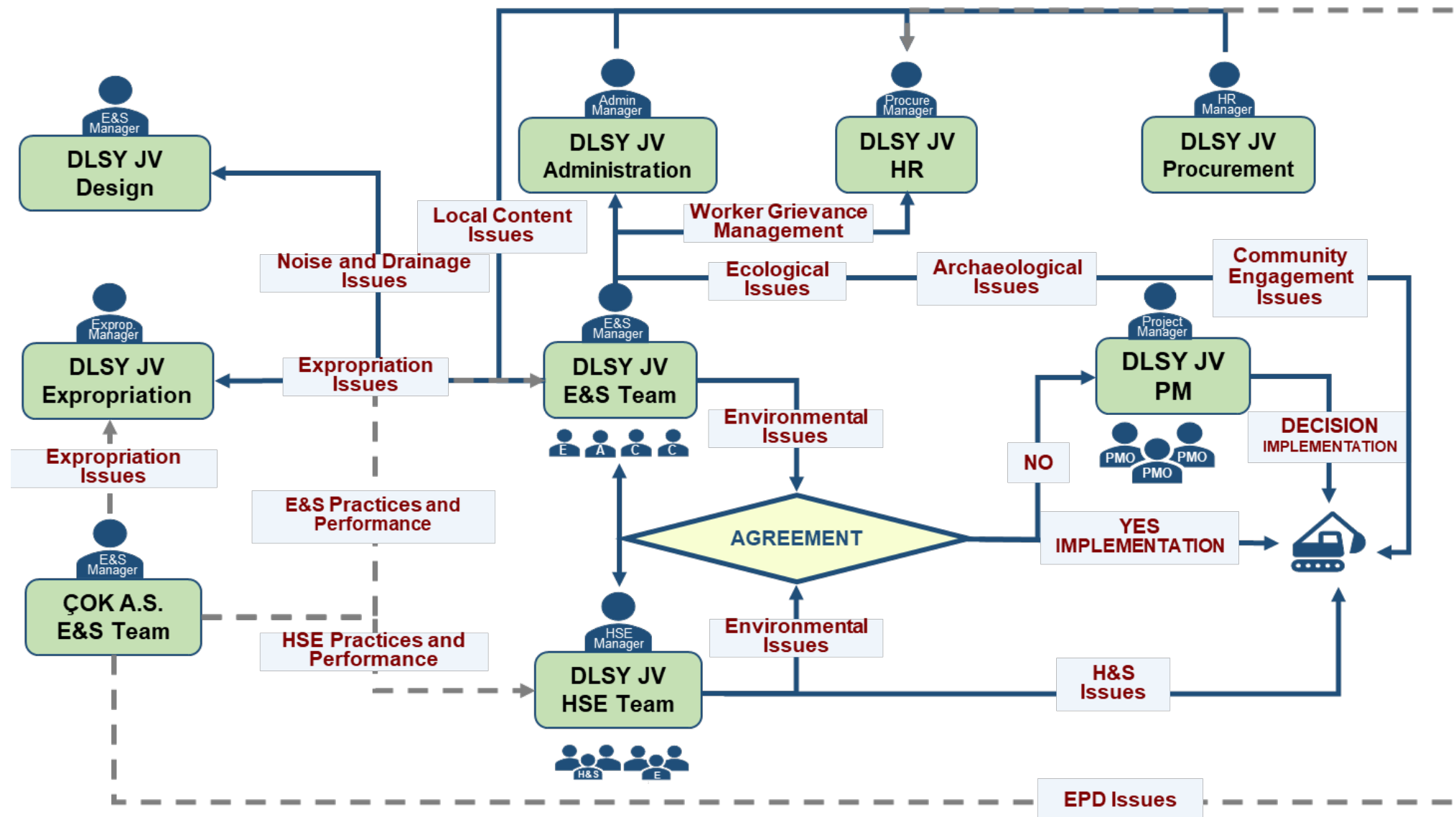


Design-Construction

- E&S Team Efforts
 - E&S Communication System
 - Pressure on involvement into the design
 - E&S capacity building trainings to all departments, subcontractors, site workers.
 - Setting ecological bridge design requirements
 - Getting budgets approved.



Design-Construction



Design-Construction

- Management of social impacts
 - Informing public about design after land acquisition started.
 - Limited attention by public.
 - Collecting requests of public and delivering them to Ministry.
 - Ministry evaluates based on their own standards not internationals.
 - E&S Team is the buffer and tried to find solution.



Operation

- Majority of impacts managed.
 - Public needs collected and delivered to Ministry.
 - Increased number of overpasses, underpasses and culverts.
 - Ecological Bridge constructed.
 - Awareness is ensured between all teams.



Operation

- During operation, there are problems occurred on water discharge of the water to the receiving environments.
- Currently all parties working together to resolve this issue.



4. Lessons Learned

Key Lessons for Future Projects

1. Better project development and integrated E&S assessments during this process.
2. Improvements in local regulations.
3. Impact assessments to have site specific severance assessments on linear projects.
4. Environmental and Social Design Procedures can be established at the beginning of the Projects.
5. E&S management should have direct access to the key decision makers including board.



Let's continue the conversation!

Message me your questions or comments in the IAIA26 app.

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