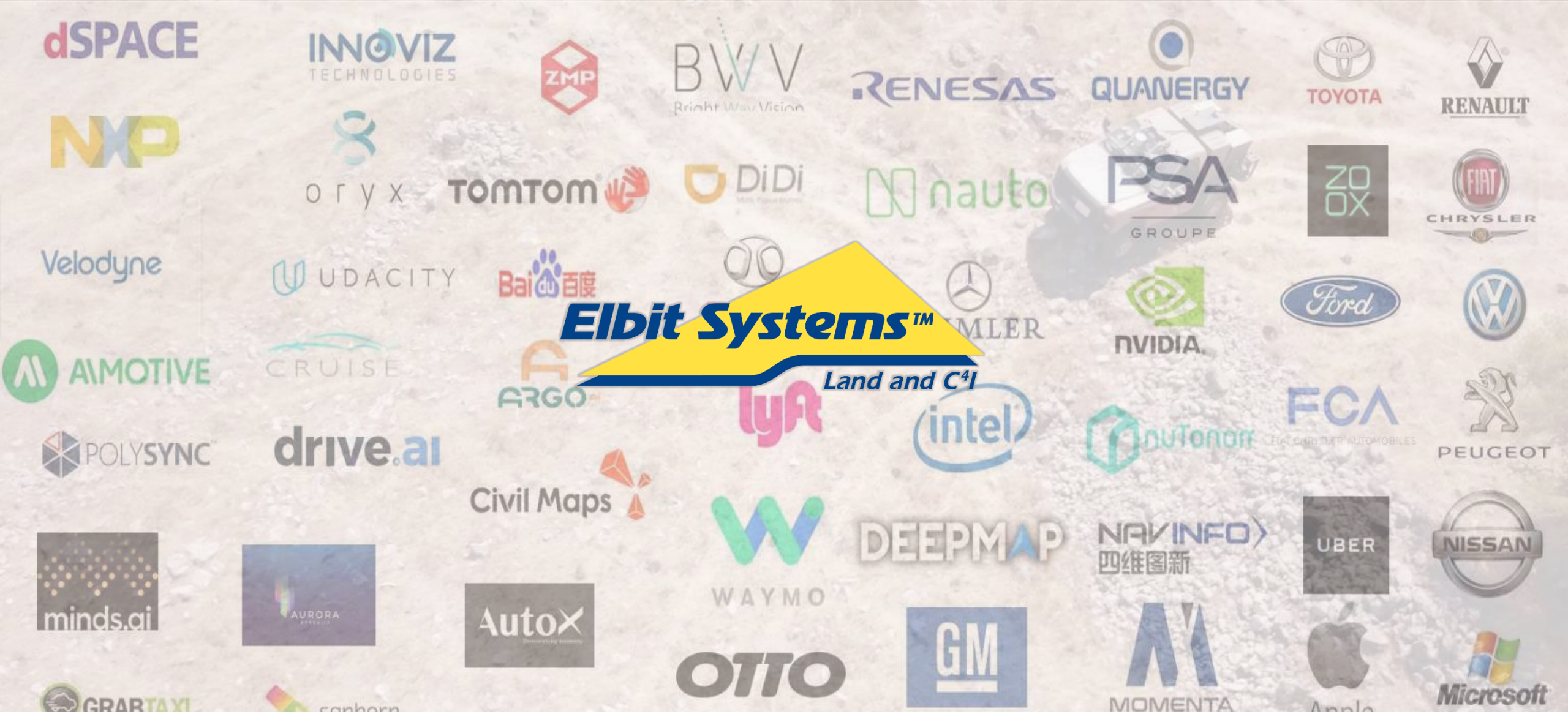
Autonomous Driving

Elbit Systems™
Land and C⁴I

May, 2018

Autonomous driving is a very popular domain...



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Commercial use for defense technology

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Driving in an open terrain environment

Navigating through a terrain, not being limited to roads and trails is a significant challenge for humans and robots as well.

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The way we do it

Traversability

Traversability is a key term in an open terrain driving.

Obtain terrain characteristics

Terrain geometry & physical characteristics effects traversability.

Deduce vehicle capabilities

Different vehicles has different traversability.

Routing complexity

In an open terrain there are endless maneuvering options constantly.

Teach a vehicle to drive

Driving millions of miles, on different platforms in different condition is not practical…

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The way we do it - obtain terrain properties

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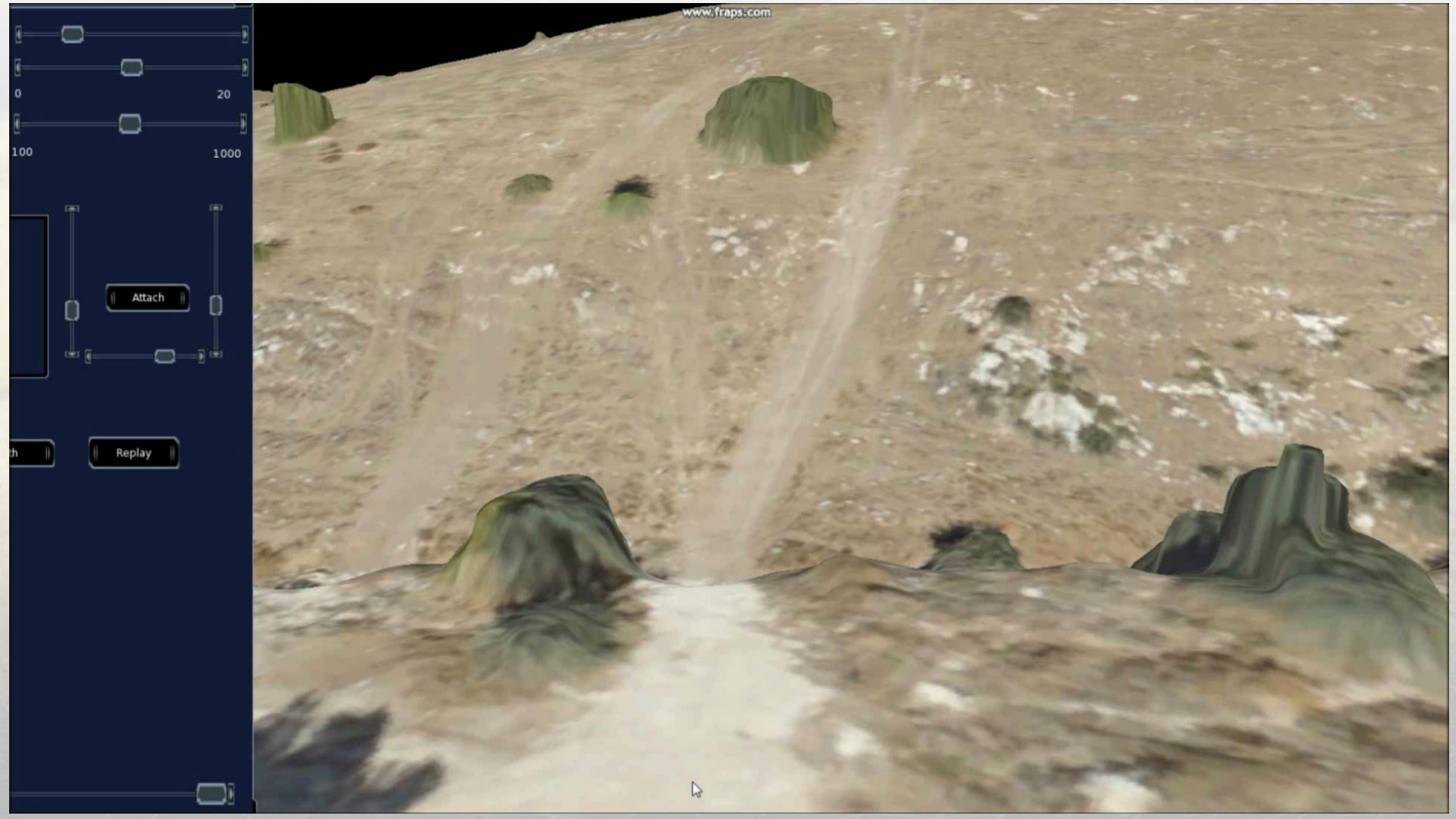
The way we do it - deduce vehicle capabilities



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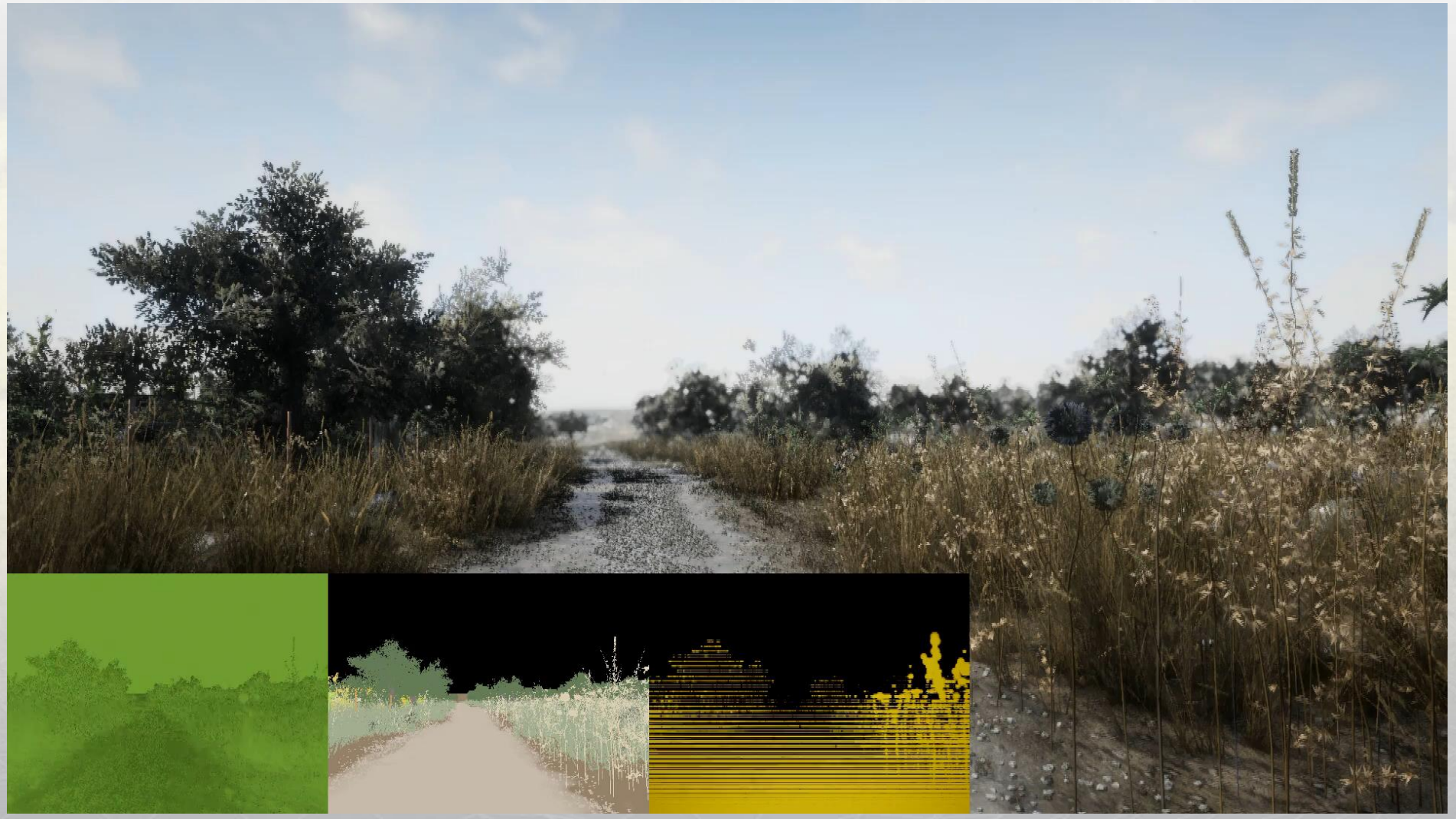
The way we do it – simulation environment



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Conclusion

- Maximize vehicle's maneuvering options
- Take it safely to it's limits
- Optimal route planning
- Driverless solutions

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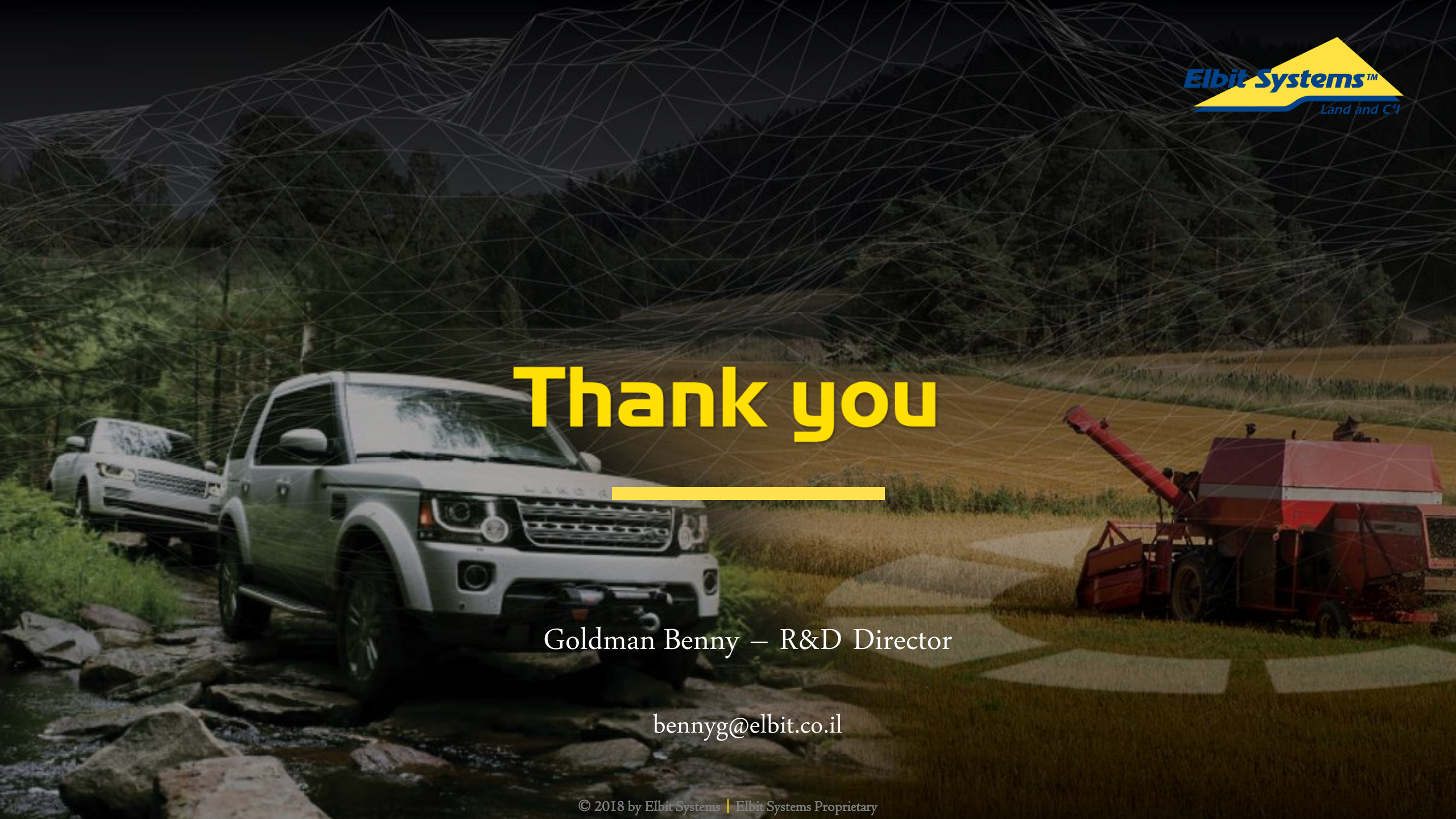

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