Executive summary

Next to the UPSIM project website the consortium decided to produce and to provide an explanatory movie for enabling a quick introduction into the UPSIM project.

The movie is available in two form:
- embedded into UPSIM projects website landing page: www.upsim-project.eu
- shared via YouTube channel: https://www.youtube.com/watch?v=PsjGh9X9Dpo

UPSIM Movie Storyboard

One thing is obvious ...

... systems are getting more complex...
...and the automotive industry is developing fast.

When it comes to innovation, simulations are essential – and the advantage is pretty clear:

- Simulations reduce real tests, are reusable and lead to early decisions on how to improve designs without spending a lot of money.

Despite that, simulations can never accurately represent the reality.

And the consequences of false results can be horrendous.
Additionally, the development and optimization of cross-domain system functions ...

... require a coordinated collaboration between relevant stakeholders - demanding for processes, roles and data quality measures.

We at UPSIM know these challenges.

Therefore we have developed a structured top-down strategy...

...from defining collective simulation targets to simulation quality assurance to provide right-sized simulations for design and testing.
May we introduce: System Simulation Governance – extending Simulation Governance by collaboration and traceability aspects.

We keep important factors in mind during implementation: Most of all it is important to clarify simulation targets and relevant stakeholders.

From targets simulation scenarios and architectures are derived,...

...serving as input for low-level Modelling and Simulation.

Quantification of Quality for all Modelling & Simulation artefacts is introduced by manual or automated assessment.
The essential brick is then represented by the coordinated provision and aggregation of artefacts during simulation development and utilization.

We realized this in three steps:

First, we define a simulation readiness level and the according collaboration process.

Second, we continuously collaborate by exchanging agreed data quality...

...and third,...
we present robust artefact traceability via a chained digital signature.

However, we can only achieve the real value of simulation when

we can prove the quality via a kind of DNA. This DNA ...

...enables the IPR-protected distribution ...

of development artefacts, ...
...unleashing distributed and collaborative virtual system development.

You see: with the UPSIM approach models and simulations becomes of real value and thus represents a competitive differentiator between companies and industries.

Finally, the key factors for success are how smartly collaboration is done and simulation is being used by companies, in a convincible and traceable way, providing sufficient evidence.

So let's get started. Find out more at the UPSIM project website ...
... and get in contact with the project consortium partners.
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