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Energy-use is one of the most topical and vital subjects on our planet.
Ethically and commercially.

It was not so long ago that to be 'green' was considered to be a 'good' thing but a bonus rather than a necessity.

But times have changed.
Quite rightly.

Global and national targets have been set.
The EU's 2020 climate and energy targets are ambitious and they loom ever-closer.

I'm sure you need no reminding but they have set the considerable goal of limiting the rise in global temperature increase to below 2 degrees Celsius with a more ambitious target of a 1.5 degree limit.

And for any of us involved in the world of transport this is a particularly pressing issue.
Because transport is responsible for no less than 24% of greenhouse gas emissions in the EU.

And 32% of its energy use.
If we don't contribute to the greater targets the continent has no hope.

Some industries have been relatively progressive in terms of their environmental responsibilities.
Cars are required to publish their fuel economy. New houses are marketed with energy charts and yet the railways have typically been one step behind the curve.

There is, of course, a general understanding that rail is an environmentally friendly way to travel. Electric trains being particularly efficient.
And, as an aside, I should say what a pleasure it is to be here in the country that plans to have the biggest high speed rail network in Europe at 6,000 miles.

And yet through much of the continent neither operators nor regulators have a clear idea of the energy consumption of specific trains.
Despite the enormity of the problem.
In Germany 5 terawatts hours of energy are required to run the railways every year.
In the UK, 15% of the entire railway operating cost is consumed by energy for running the trains themselves.
It is clear that the benefits of getting this right are game changing.

None of that will be news to any of you.
But I believe it is important to establish the context.
Because everything I describe about Erex is intended to solve that very problem.

And, as I shall explain it seeks to do so individually and collectively.

If our aim is a European standard for energy efficiency on our railways then Erex has two roles to play:

Precision validating metered data and settlement, and the development of a community in which to develop best practice.

Let's start with the validation of metered data and settlement.

Before Erex there was a lack of accuracy in measuring train emissions.

This meant that there was no incentive for train companies to save energy.

What they couldn't measure the world couldn't see.

And throwing resources into reducing emissions may have been ethically sound but the benefits were impossible to prove.

And then our precision validating metered data and settlement dramatically changed the landscape.

Every train and every journey could suddenly be measured and settled in terms of energy used.

Its precision is remarkable measurement taking place minute-by-minute, or at five minute intervals.

Erex quickly became the standard choice for validation and settlement of energy data, used to efficiency programs and as our reputation accelerated, so did our partner base.

They realised – as did we that accurate measurement and settlement allowed them to identify waste, to seek economies, to make changes and, in a nutshell, to reduce their carbon footprint from a position of strength rather than via guesswork.

We had begun by looking to transform Scandinavia's energy efficiency.

But that ambition grew to cover Europe.

And potentially the world.

We want to make Erex the standard adopted by the EU and, as a result, have done all we can to establish our credentials by complying with ISO 9001 quality standards.

And it's working!

Take the Belgian rail freight operator NMBS Logistics.

It installed metering systems on a series of freight trains and, as a direct result managed to reduce their energy consumption by 25% in a single year.

That alone beats the number required to meet the 2020 energy targets.

As an additional benefit that participating trains received 72% less double yellow or red flags which clearly improves rail safety too.

Which brings me to the major secondary benefit of Erex:

Sharing and the creation of best practice.

I have already mentioned the sheer size of the consumption across our railways in the UK and Germany.

Imagine the collective use of energy across Europe.

And the waste involved in every country developing its own solution to the problem.

At Eress we do not want to stop at the creation of a product.

We are looking to grow a community.

A community that shares the goal of reducing emissions, and meets the challenge collectively.

This is not an issue for countries to pursue separately.

We want to facilitate quicker, more efficient answers.

Working together sharing know-how and data.

Ensuring that we benefit from each others' work meeting collective problems together.

Every infrastructure manager who has worked with us will have learned something that is useful to the rest of the community.

By sharing it others can enhance and finesse their own infrastructure.

And I'm not suggesting that we stop at the subject of energy metering and settlement on the railways.

Between us, we can discuss the entire world of energy efficiency.

Becoming greener and more efficient.

Pleasing customers and shareholders as well as regulators and governments.

Which is what brings us here.

As a community.

And I hope that there will be ideas shared and stories told both within and outside the formal conference agenda.

From my perspective it is both exciting and humbling to be with you all.

Ten years ago, I was in this role but only with an idea.

This year seven partners and over 4000 trains run by more than 50 operators are using Erex.

Knowledge about energy use within the rail industry has been transformed.

The levels of accuracy and precision have been unmatched.

Borders have ceased to be barriers to our impact.

Our venture now stretches through Belgium, the Netherlands and Switzerland.

Akiem in France and Virgin in the UK are testing our systems.

A year ago we met in the Netherlands.

We agreed to strive to make Erex the 'de facto' standard settlement system across the continent.

We are well on the way but there is still work to be done.
Including here in Spain.

We will continue to do our bit and I ask you all to do your bit to help create a European Energy Union by sharing your understanding of the benefits we can create and motivate others to join us.

The wider our community and the greater our interaction the more benefit will accrue not just on our balance sheets but on our entire environment.

Thank you!