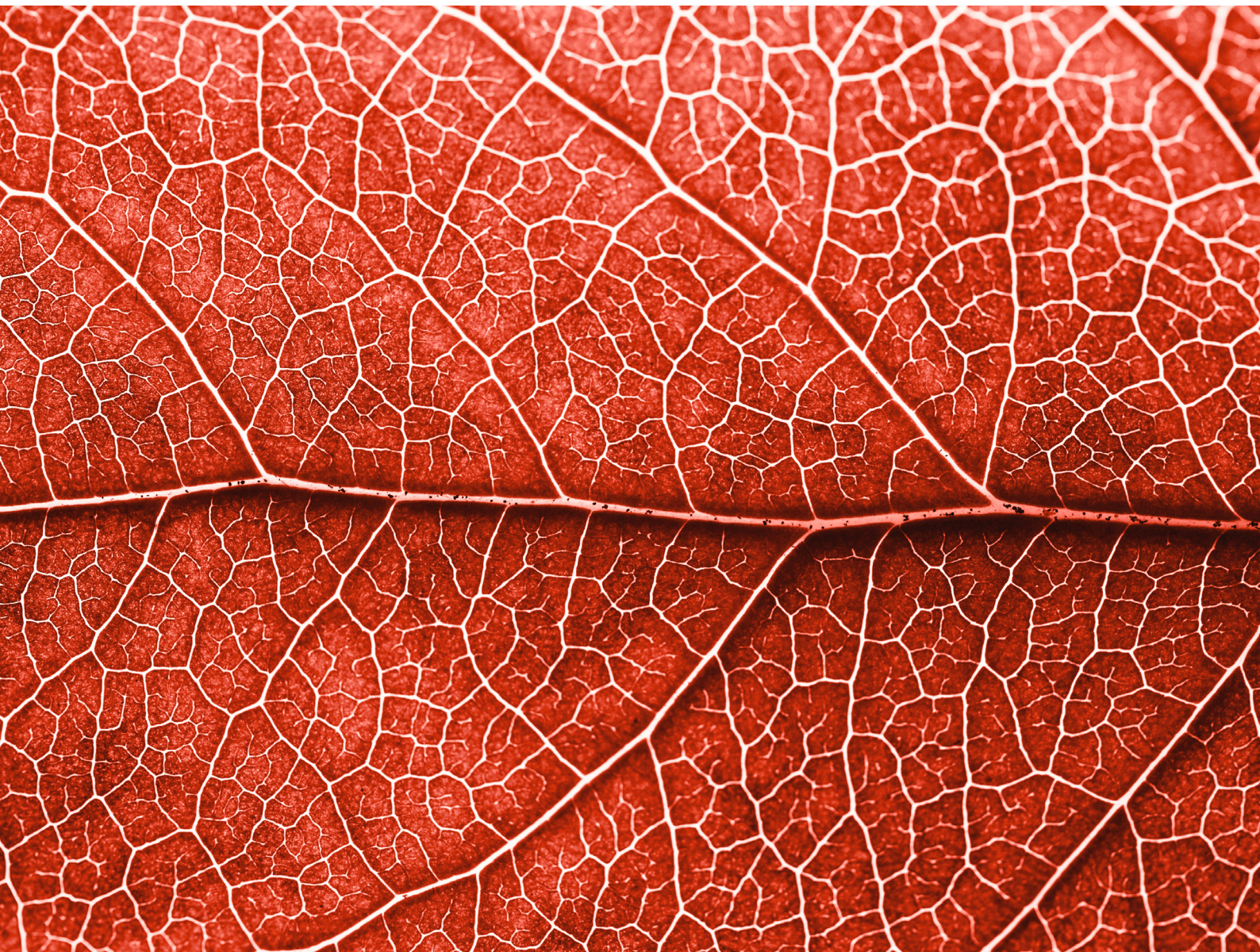# asset *hive*

The Digitalised World
A GUIDE TO CONNECTING ECOSYSTEMS

Volume 5

CONNECTING ECOSYSTEMS

Connecting ecosystems refers to the unification of a company's technology and workflows allowing information to be transferred without duplication and overlap.

What is it?

Connected ecosystems feature a network of digital technologies which enable two-way integration to leverage unique capabilities that each technology has to offer.

When digital transformation is implemented correctly, businesses are able to adapt to ever-changing market conditions driving efficiencies and innovation, and creating value.

However, many businesses have mistakenly invested in 'silver bullet' digital technologies which only provide single touchpoint solutions, oftentimes resulting in costly disappointments, incapable of delivering a return on investment.

This is no more evident than the investment in 'big data' – a buzzword that has dominated digital strategies for years, but failed to help many businesses make the informed decisions they envisaged.

Investment in big data alone is not enough to create tangible financial value unless this data is connected to operational workflows that prompt action to address the issues and problems identified by the data being collected.

Work processes must be re-envisaged and redesigned to make those who are involved in performing the work more efficient and productive.

Consider this in the context of managing a large infrastructure asset like an oil and gas production facility.

Condition-based monitoring uses sensors to collect real-time data of these production assets, such as vibration analysis and vibration monitoring, to test and track the health of a pipeline, and predict potential equipment failures.

This allows for planning of repairs or replacement activities ahead of the failure, ultimately improving operational efficiency and reducing costly downtime.

However, identifying the issue is only one part of the equation. An alert that the equipment is set to fail is only useful if the data suitably plugs in or integrates with other technology and in turn triggers a workflow action.

Effective interoperability in a business requires varied digital technologies and work centres to talk to each other collaboratively as a connected ecosystem.

Only where technology and workflows form a connected ecosystem can true efficiencies be realised.

Why should I care?

The power of one connected ecosystem is far greater than the power of technology as standalone elements.

No single technology can single-handedly deliver everything and therefore creating an effective connected ecosystem (technology and people) is the key ingredient for optimal efficiency.

Take for example a mining company using sensors to predict temperatures in an autoclave[1].

This prediction supports operators who adjust the right variables to ensure the temperature remains optimal for maximising gold recovery while using as little energy as possible.

Now imagine the data set from the sensors showing lots of drops in temperature at different times.

Only through engaging with the autoclave specialist might it be discovered that some of the drops are as a result of the machine being shut down.

You don't want the operator adjusting the temperature when the autoclave is meant to be off.

The key is to put human intelligence and experience at the centre of all business processes, while investing in technologies that feed valuable data and insights to inform the actions to be taken.

Our AssetHive data hub technology is a great example of a solution that delivers compounded value when implemented as part of a broader ecosystem of applications.

AssetHive allows plug-in applications to feed information into the data hub and consume information from the data hub for extended use.

Bidirectional APIs allow users to achieve this transfer of information to and from systems, creating a full end-to-end solution.

[1]An autoclave is a machine used to carry out industrial and scientific processes requiring elevated temperature and pressure in relation to ambient pressure/temperature.

What can I do about it?

Like all ecosystems, integrating technologies is delicate but can be nurtured to thrive by following these key steps:

01

Use its power to accelerate digital transformation

By re-envisaging your digital strategy, a connected ecosystem can unify your existing and legacy systems, and integrate your many data sources into a unified view that offers more context.

02

Embrace collaboration

Understand your organisational capabilities and the value one application can offer another. Plug-in applications cultivate an environment where innovations come together and create a digital environment that addresses a common problem.

03

Collate data aligning with processes

Aligning data with business processes requires a redesign of the process itself so that the key stakeholders can interact with the data in a way that makes it instantly accessible as it is collected.

Innovator's checklist

Leverage the power of APIs – Many businesses in pursuit of digital transformation will invest time and money into developing systems and applications that already exist. Rather than investing valuable resources in developing in-house systems, leverage the power of APIs to integrate with existing applications that have proven ability to deliver validated results.

Identify missing links – Consider which technology partners and applications will add value to your existing ecosystem. Analyse your digital strategy to determine whether it is delivering on its objectives of improving aspects such as the way people work, operational efficiencies, the way information is shared across your organisation, all while delivering financial gain.

Complement instead of compete – Your digital ecosystem should consist of complementary technologies that collectively add value to each other. You must embrace digital technologies that work in collaboration to deliver interoperability.

Create an integrated agile environment – Create an ecosystem of plug-in applications that offer extended functionality which can be managed independently but scaled across your business. No singular system can deliver everything so the API approach enables plug-in systems to be connected in an integrated and agile way.

Who is Silverhorse?

Silverhorse Technologies is on a mission to add value for our customers and bring the transformative benefits of digitalisation to large-scale assets.

Our AssetHive platform is a next-generation connector/middleware data hub technology with an embedded workflow architecture which enables efficient, repeatable, accountable and auditable workflows.

AssetHive is an intelligent data hub, customised around your asset to enhance operational efficiency in a low risk and scalable way.

The data hub enables your digital strategy by implementing full cycle, optimised operational workflows. It delivers data insights where they are needed, with transformative, value-adding results.

RECOMMENDED READING

Volume 1
A GUIDE TO DATA HUBS

Volume 2
A GUIDE TO DATA HARMONISATION

Volume 3
A GUIDE TO WORKFLOW ENGINES

Volume 4
A GUIDE TO CREATING A DIGITAL CULTURE