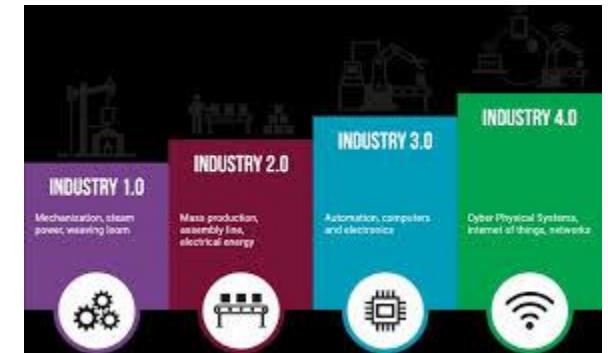


AllSense Machine Learning Machinery-As-A-Service Stack (The IR4.0 MAAStack™)



IR4.0 MAAStack™ Opportunities for Industrial Machinery OEM's



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What is Machinery-As-A-Service?

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In today's Gig-Economy World, we have all come to expect **Usership of Assets**, rather than **Ownership**, is available for just about everything. (*Uber, AirBNB, AWS - the list goes on*)

After all, why would I own the Asset when the cost of the Asset is a burden on my capital?

And why do I want the responsibility for maintenance, repair, replacement to be on me, the end-user?

After all, my business is making things or providing a service, not being an expert in the Asset (whatever it is)

So an **AllSense Machine Learning MAASStack™** lets you offer your clients a full Usership Model

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And for Machinery Manufacturers, your clients are thinking the same thing when it comes to your equipment.

You make it, you are the expert on the use and maintenance of it, so why are you transferring those responsibilities from you to the end-user?

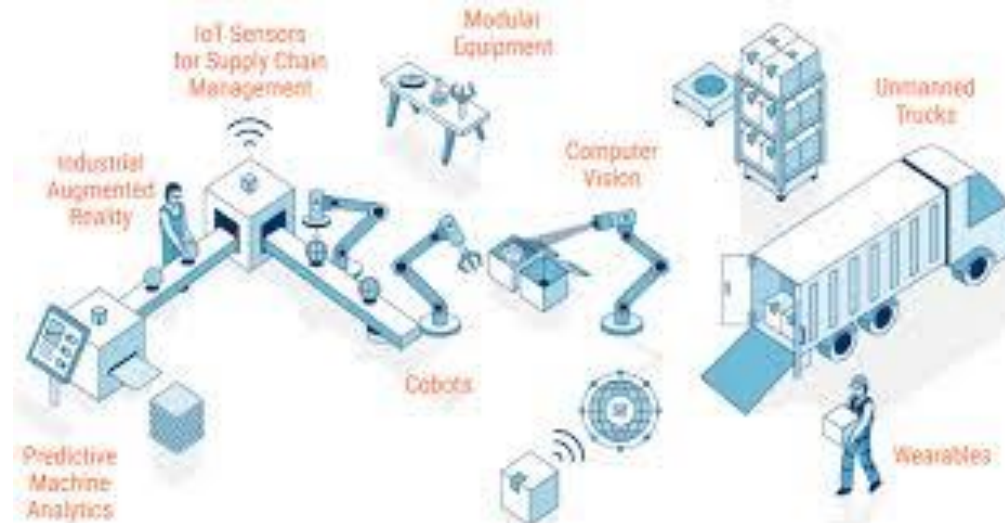
And here, with the **AllSense Machine Learning MAASStack™**, is the opportunity for you to meet that new (and growing) demand from your client base by designing an MAAS offering that meets your Client's needs – as well



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Benefits of MAASStack™ to End User Clients

1. **“Not my problem any more”**— from removing the need for financing to eliminating their servicing headaches to better utilisation of the Assets, your client’s benefit from end to end if they can take advantage of your **MAASStack™** Offer.



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Benefits of MAASStack™ to OEM's

1. **More client users** – if your clients don't need to make capital allocation decisions (or arrange end financing) in order to “use” your equipment, how much simpler is the decision making process for them?

They can simply do the unit economics based on cost of end unit sale and unit margins vs your **MAASStack™** Unit fees

If the numbers work, the deal is done – and the headache of maintenance and service is outsourced back to you, making the deal even simpler

See MerkleBot video - Robotics-As-A-Service as an example (
(disclaimer – Merkle is not a **MAASStack™** client, but it's a great model for you to see!)

<https://www.youtube.com/watch?v=qd3-3XjRgJI>

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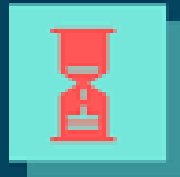
Benefits of MAASStack™ to OEM's

2. **You maintain Ownership of the Asset** – we'll get to the disadvantages of a MAASStack™ offering later (which includes the financing arrangements) but under a MAASStack™ offer, you, as the OEM, retain ownership of the Assets – so those Asset Values sit in your Net Asset Value calculations

Four key questions about smart manufacturing



What is smart manufacturing?



What are the benefits of smart manufacturing?



What does smart manufacturing mean for manufacturers?



How does data drive smart manufacturing?

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Benefits of MAASStack™ to OEM's

3. **Fleet data** – we'll talk more about connectivity and the how-to of gaining data from connected in-use equipment data flows later, but imagine that you, as an OEM, were getting data flows about operating conditions from 100, 1,000 or 10,000 of your in-use equipment.

What could you do with that data to improve your machines, plan for servicing capacity or add value (through Machine Learning and Algorithm development) to your clients with Predictive Maintenance Programmes?

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Benefits of MAASStack™ to OEM's

4. **Efficient Allocation of Service Resources**— now, if you were getting Fleet Data and building the big picture of servicing through Predictive Maintenance Planning (and in a **MAASStack™** model, you are providing the servicing function), how much more efficient could your spares management be?

And how great are the savings if you can reduce inventory to a Just-in-Time system, because you **KNOW** when your clients are going to need replacement parts?

We think it could be in the magnitude of 40% - 60%, straight to your bottom line!

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Benefits of MAASStack™ to OEM's

5. **Unique Selling Proposition (USP)** – if you are a Tier 1 OEM, then you can live on your brand and reputation (for a while at least – *remember, for a long time, purchasers of computing equipment “couldn’t go wrong if they bought IBM”*)

But if you don’t have the luxury of a Tier 1 OEM status, you better be doing something different – and there’s not much more different than a **MAASStack™** offering!

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Disadvantages of a MAASStack™ Offering

1. **Capital Costs are on YOU** – creating a **MAASStack™** offering isn't all one way happiness and joy of course!

The cost of capital is now on you – so you need to get your financing lines in order, which you will already have for the raw materials you use to produce your products anyway.

And to do that, you will need to show that **MAASStack™** gives you better margins over the long haul than outright sales.

But it's always easier for you as the OEM (particularly if, as we mentioned in Benefit #2, you retain Asset Ownership) to arrange financing lines for machinery production at scale, than it is for your Clients to obtain credit for an individual machine

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Disadvantages of a MAASStack™ Offering

- 2. Servicing Costs are on YOU** – obviously, your servicing component and risk profile increases if full life-cycle responsibility for servicing and maintenance rests with you.

But as the OEM, you are also in the position of minimising costs of service and increasing efficiency of service deliverables, because of supply chain economies of scale.

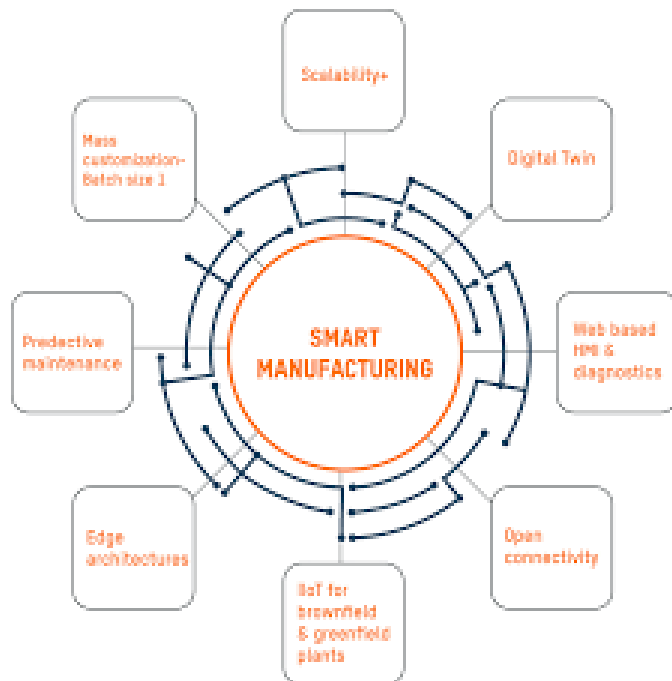
And if you marry that with Fleet Data and Machine Learning-based Predictive Maintenance Models, you can manage the servicing aspects efficiently and with huge cost reductions

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What Do I Need to Create a MAASStack™ Offering?

Here is where we come in 😊

AllSense IoT (www.allsense-iot.weebly) and our Machine Learning Partner have joined forces to offer sub-Tier 1 Industrial Equipment OEM's a **full OEM MAASStack™**, so you can create your MAAS Offering with the confidence of real data behind you.



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What Do I need to create an MAAS Offering?

1. **You need a MAASStack™ Fee Model** – what and how are you going to charge your customers?

This could be on an **operating hours basis** (static rotating equipment), **a machine movement basis** (forklifts, robots, other automated process equipment), **a volume through-put basis** (pumps) or something unique to your equipment and client base.

We can help you to determine the fee basis.

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What Do I need to create an MAAS Offering?

2. **You need Data Flow** – how are you going to track not only the numbers for fee-charging, but also how will you get the Fleet Data for the Predictive Maintenance Models?

AllSense IoT can help you build not only factory-fitted Internet of Things (IoT) sensor and cloud-connectivity kits for incorporation in your new equipment, we can also create retrofit kits for the equipment you already have in the field with clients.

Which means you can convert existing clients to **MAASStack™** to build loyalty and “stickiness” among your Client community

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What Do I need to create a MAASStack™ Offering?

3. You need Data Modelling for Predictive Maintenance – you also need to use the Data gathered from the AllSense IoT connectivity kits to get the savings and efficiency benefits of your **MAASStack™** offering.

Our Machine Learning Partner, using their Machine Learning Machine Learning software, takes the Data Flow and converts it into meaningful Predictive Maintenance Models that just keeps on learning the more data it gets.

So you can start to use those Models for:

- Service Delivery
- Product Refinements

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How Do I get a MAASStack™ Offering together?

Contact Dennis McMahon from AllSense IoT today to discuss whether you're ready for a **MAASStack™** Offer.

Phone: +60169839715

Email: mcmdennis@gmail.com

www.allsense-iot.weebly.com

Need your maintenance staff to “get” IR4.0?

Check out www.ir40-consortium.weebly.com