

Professional PLM - raise your standards and your horizons

Roger Tempest, PLMIG



DIGITALIZATION FOR SUSTAINABLE PRODUCT DEVELOPMENT AND MANUFACTURE

A short presentation on Professional PLM ...

Professional PLM Initiative

- What is the Initiative?
- How can professionalism raise standards?
- How can a profession expand horizons?

... that explains the potential impact and benefits of establishing a PLM profession.



Why form a PLM Profession?

Because...

- ❖ PLM specialists are an endangered species
- ❖ Dead Poets' Society
- ❖ Nobody Understands Me
- ❖ PLM is a career non-starter
- ❖ PLM is a career dead-end

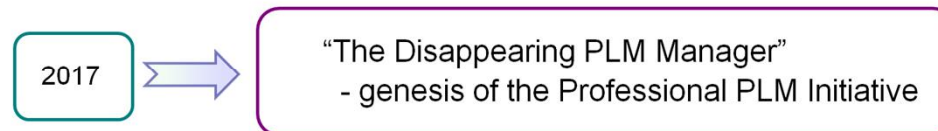
There are many reasons for PLM practitioners to think about forming a profession, but let's start with 5 simple ones...



Why form a PLM Profession?

Because...

- ❖ PLM specialists are an endangered species



Fewer and fewer companies are actually putting someone in place whose title and role is: 'PLM Manager'. Even where there is a \$multi-million implementation project, companies will complete the project and appoint a manager as an afterthought. If organisations run PLM without a specialist in the team, failure is built in – and, in the wider world, the role of PLM Manager will die out.

This phenomenon was first observed in 2017, and prompted an article in John Stark's 2PLM e-zine about '*The Disappearing PLM Manager*'. The feedback and response to this led to the formation of the Professional PLM Initiative.



Why form a PLM Profession?

Because...

❖ Dead Poets' Society

2019



Launch, and 1st Workshop in Wolfsburg
- "we need to start a movement"

At the Initiative's first Workshop, hosted by Volkswagen Group in Wolfsburg, PLM practitioners were compared to the *Dead Poets' Society* – an arcane group with interests known only to themselves.

It is time to bring PLM out into the open, and into the business mainstream.



Why form a PLM Profession?

Because...

❖ Nobody Understands Me

Try the Cocktail Party Test

Then think how much you *actually know*...

PLM practitioners are accustomed to their colleagues and friends not knowing what they do. The experience of introducing yourself to new acquaintances at a social event is just one part of this. More importantly, the fact that many colleagues in your company are also ignorant of your work is a constant barrier.

If you think about the knowledge, skills and expertise that you must have to be a PLM specialist, this becomes even more frustrating.



Why form a PLM Profession?

Because...

- ❖ PLM is a career non-starter

“What advice would you give a school leaver thinking of working in PLM?”

Getting into PLM is difficult. Once upon a time, after I had successfully explained what PLM is, a lady acquaintance asked me this question.

My first response was: “it isn’t the best career choice” but then... how would a school leaver even know that PLM is a possibility? PLM does not have a channel of bright young people coming into the discipline, looking for a good career and keeping the discipline alive.



Why form a PLM Profession?

Because...

❖ PLM is a career dead-end

"A PLM Manager is unlikely to become CEO armed with this unrecognised background"

Getting out of PLM can be just as difficult. This quote encapsulates the problem of moving on from a PLM role, either upwards or out into other disciplines.

Jim Heppelmann once said that PLM should be seen as a kind of "MBA in how a manufacturing company works". Instead, if the interviewer for your new job has not heard of it, a large part of your CV has become valueless.

Being a member of a recognised PLM Profession would change this.



Why form a PLM Profession?

Because We're Worth It!

The Premise for Professional PLM

The purpose of this Initiative is to bring about change in the PLM industry, based on the following premise:-

- ✓ PLM is a specialty in its own right;
- ✓ of sufficient complexity that its practitioners should be certified to carry it out;
- ✓ of sufficient value to the business world to warrant its being recognised as a profession; and,
- ✓ steps should be taken to establish that professional status.

So this is the Premise that the Professional PLM Initiative is working to. PLM deserves to be a recognised profession, held in the same regard as engineering, law, lean, or project management.

PLM is too important to let it be done by someone who doesn't understand it.

And if we want a Profession, we will have to work towards it.

Professional PLM Initiative - Overview





PLM Interest Group

Welcome to the PLMIG

The PLMIG is the only independent organisation working for the good of PLM itself, crystallising PLM knowledge and providing a platform for industry improvement.

Professional PLM Initiative

The PLM industry is starting to take steps toward establishing itself as a profession. The PLMIG is providing the platform for the Initiative, and you can see the latest progress via the links below.

PLM Toolsets

PLMIG toolsets. They embody a set of neutral work.

Adopting PLM +

PLM Governance +

Advanced PLM +

PLM Answers +

Enter the Site >>>

PLM as a Profession +

Focus on the Profession +

Steering Group +

Networking Day 27 September +

Project Justification +

PLM Deliverables +

PLMuERP +

CEO Briefing +

PLM Management +

PLM as a Profession

After more than 15 years as a business discipline, it is time for the PLM industry to establish a well-defined, internationally-recognised professional structure.



There is now a groundswell of opinion that this needs to happen.

The way forward could range from formal methods of training and qualification, to PLM becoming a genuine profession, alongside engineering, law, and accountancy.

This will be a significant step forward, and will change the way that PLM practitioners work. There are many issues to be debated, and collective decisions to be made. The discussion process has started, and is summarised below.

Navigating the Subject

This page contains an **Overview** of the whole subject, explaining the background to why the Initiative was launched, its working premise, and how it intends to move forward.

Other pages cover:-

- The Background Debate
- Roles and Grades
- How the Roles Map
- Endorsements
- Steering Group
- Deliverables and Timing
- Round Table Workshop
- Wolfsburg Workshop Results
- Berlin Workshop Results
- Networking Day September
- How to Participate

It's not a PLMIG profession....

.... www.professionalplm.org

This slide is simply to clarify that Professional PLM is a self-standing Initiative.

Back in 2004, the PLMIG was formed with the general intention of becoming a kind of 'PLM Institute'. In 2017, the PLMIG hosted the first debates about professional PLM. However, it is now simply the driver for change.

If there is to be a PLM Profession, it will need to be owned and run by PLM practitioners worldwide.



A Profession for PLM Practitioners

With 50,000 practitioners worldwide...

One Global PLM Professional Body

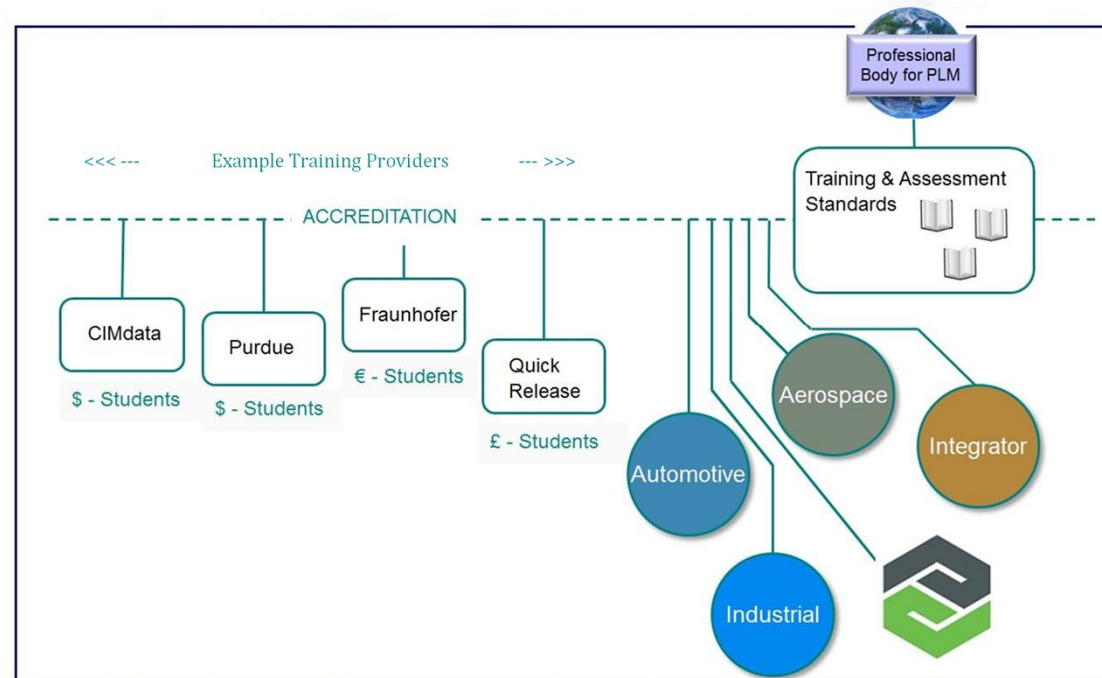
With an estimated 50,000 practitioners around the world, there are only enough to support one single professional body.

This means that any new Professional Body must be live and relevant for PLM practitioners everywhere: in the USA, the Nordics, France, Germany, Spain, Portugal, South Africa, India, China, Japan everywhere.

With all of the differences in the way that PLM is applied in different countries, it means that a new Professional Body will have a powerful harmonizing effect.



Global Accreditation

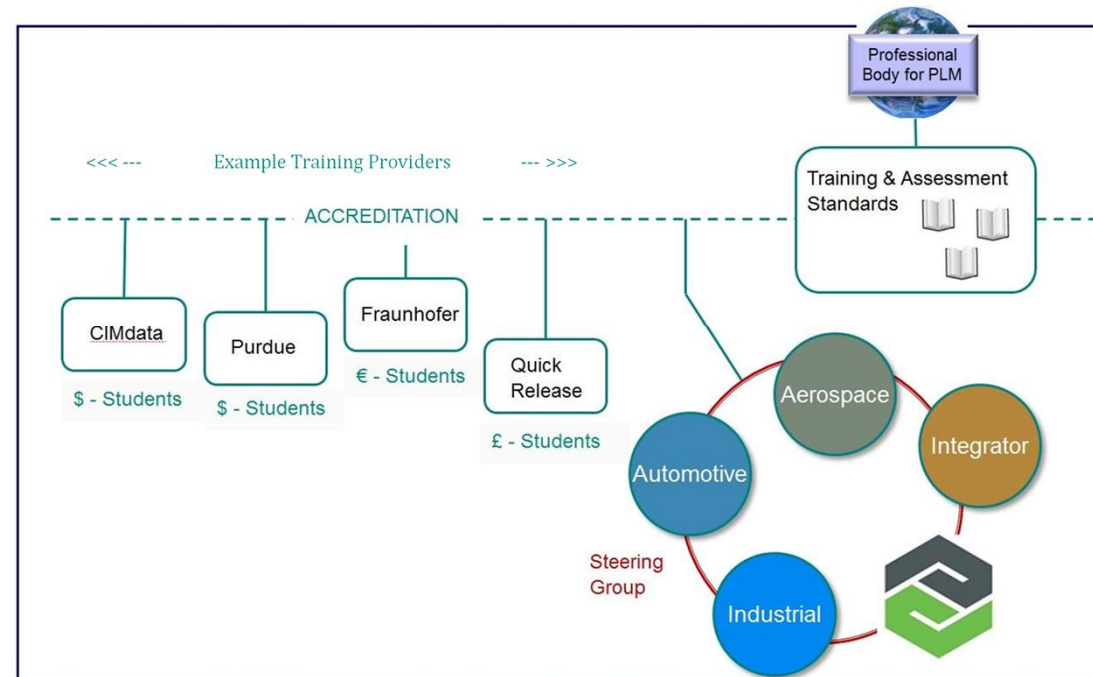


One of the roles of a Professional Body is to set standards for training and assessment of its members, and to accredit training institutions to that level. For students, this means they will have a choice of providers, and can be confident of their eventual certification. There will be a global consultation about this that will start shortly.

Major industrial companies, vendors, integrators and consultancies all have their own internal training programmes, which can also be accredited to the same level. The aim is not to impose a 'Standard PLM Course', but to allow providers to be sure that they cover all of the necessary modules.



Global Accreditation



These major industrial companies, vendors, integrators and consultancies may come together to share ideas on what the accreditation should entail, forming a Steering Group that counterbalances the Professional Body. Although it is not shown as such on this slide, training providers and educational institutions may also be part of the Steering Group.

In fact, the Steering Group has already formed, and in the short term its role is to guide and direct the Initiative as it moves through the initial Foundation Stage (as in Slide 19).



A Professional Career

Providing the practitioners of the future

Parameters of Professionalism Roles / Grades / Career Path

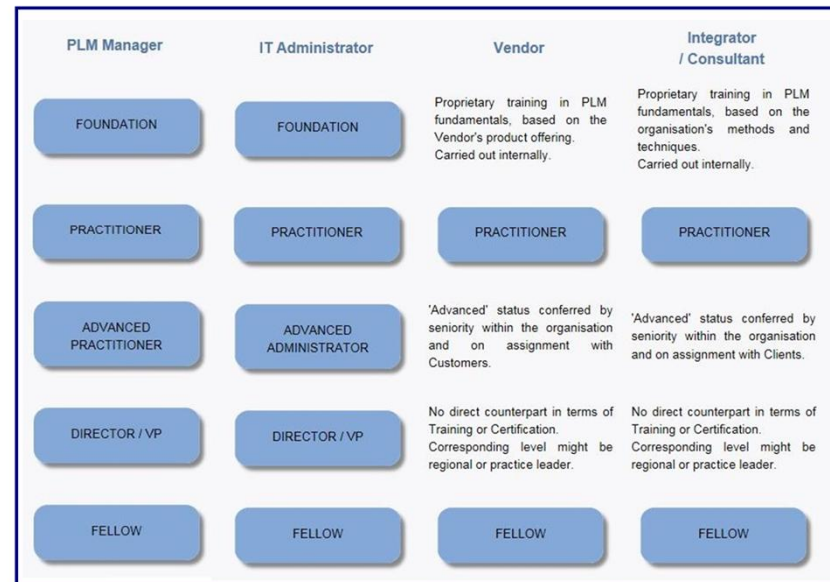
At the moment, a PLM practitioner's career is entirely random. What happens, happens.

If we define a profession, then we must define the skills, knowledge and expertise that must be attained for each role or grade. This means that the career steps become visible, and can be planned for. PLM practitioners will have a clear career path, and HR departments will be able to implement a clear training structure.



Giving Shape to your Career

... whatever your role



There are several different roles for PLM practitioners: as the business-oriented PLM Manager in a user company; as the provider of the PLM IT platform; or as a vendor, integrator or consultant.

Within each role, there are different grades of depth or seniority. The 'Foundation Level' is basic understanding, for stakeholders in PLM projects. The PLM specialist may start at 'Practitioner Level' (able to run a project); progress to 'Advanced Practitioner' (achieve business change through PLM); and eventually become a 'Fellow'.

There may also be a level for Directors/VPs who head up PLM, but who are not hands-on.



Giving Shape to your Career

... whatever your role

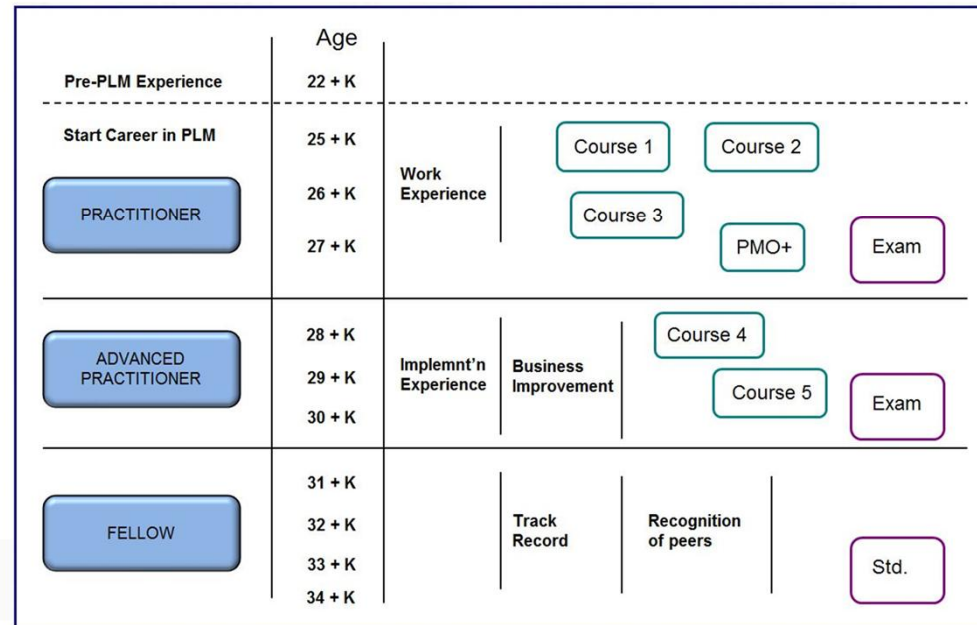
PLM Manager	IT Administrator	Vendor	Integrator / Consultant
FOUNDATION	FOUNDATION	Proprietary training in PLM fundamentals, based on the Vendor's product offering. Carried out internally.	Proprietary training in PLM fundamentals, based on the organisation's methods and techniques. Carried out internally.
PRACTITIONER	PRACTITIONER	PRACTITIONER	PRACTITIONER
ADVANCED PRACTITIONER	ADVANCED ADMINISTRATOR	'Advanced' status conferred by seniority within the organisation and on assignment with Customers.	'Advanced' status conferred by seniority within the organisation and on assignment with Clients.
DIRECTOR / VP	DIRECTOR / VP	No direct counterpart in terms of Training or Certification. Corresponding level might be regional or practice leader.	No direct counterpart in terms of Training or Certification. Corresponding level might be regional or practice leader.
FELLOW	FELLOW	FELLOW	FELLOW

Let's just consider the user company PLM Manager, gaining 'Practitioner' status and then progressing to 'Fellow'....



Career Path

Progression becomes clear – from school to Board



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The student starts his or her career in PLM at the age of 25, and experience in Germany shows that three courses will be needed to train to 'Practitioner' level. There may be some external study (e.g. project management); and then an Exam.

The student gains implementation experience, learns about business improvement, needs one or two more courses, and after 3 years is ready for the next Exam. In a few more years, he or she is ready to be certified as a 'Fellow'.

The student now has a clear career path, and knows where he or she will be in 10 years' time via this programme.



Path to a Profession

Aim for a profession, then decide...

Path to a Profession

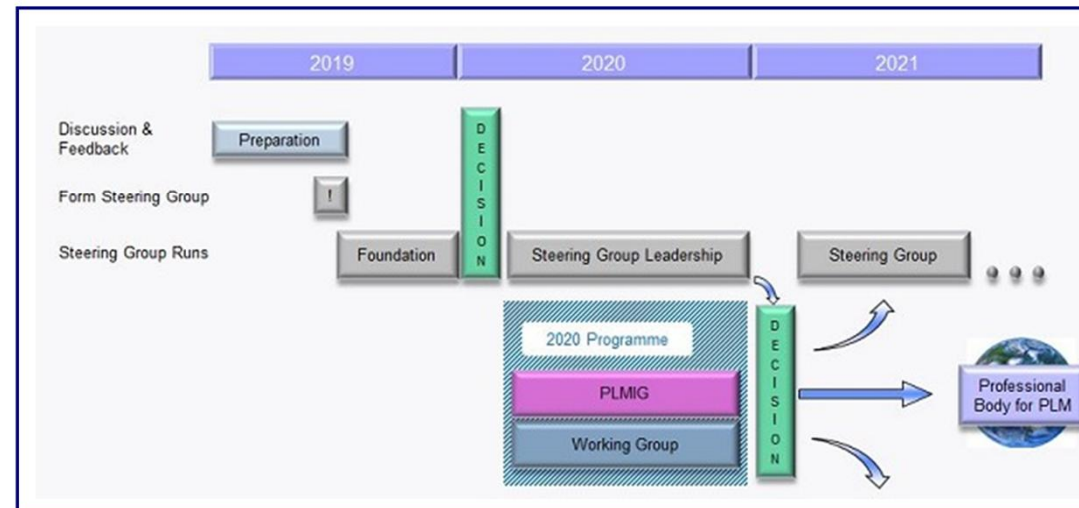
At the moment, the path towards a PLM Profession is just as important as the end result. It creates a unity of purpose and understanding that has been missing in PLM.

It used to be said that: "PLM is like grasping fog". The journey towards a recognised Profession will formalise many things that are currently vague and undefined. As it all takes shape, we can decide whether establishing an 'official' body is the best option – but for now that is the aim.



Path to a Profession

Aim for a profession, then decide...



So, in overview... A Steering Group has formed for the Foundation Stage, and is currently overseeing a 2020 work programme actioned by the PLMIG and supported by a Working Group.

At the end of 2020 the Steering Group may decide to continue on the path to a formal Professional Body; or to become the body itself; or to take some other option. Whatever the course, the Steering Group provides the primary guidance.

Professional PLM Initiative

- **Recognition and Career Development**
- **Raising standards**
 - Body of Knowledge
 - Professionalism
- **Expanding horizons**
 - DASAMASA
 - Full PLM Maturity

We have covered the benefits of recognition and career development.

The remaining slides show how standards in general will be raised via a neutral Body of Knowledge, and by a new ethos of professionalism; and how horizons can be expanded in terms of global harmonisation and of the goal of Full PLM Maturity.



Benefits of a PLM Profession

Raising Standards

Raising Standards

If there is a Professional Body, with members worldwide who are striving to extend their skills and advance their careers, then this will raise standards in general within PLM.

We are not talking about official standards such as ISO, that will somehow “standardise” PLM. PLM will always be a complex and varied discipline. It means raising the level of care, diligence and expertise that people apply to their work.



Raising Standards – Body of Knowledge

Professional PLM Neutral Syllabus

Practitioner Level

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One of the first benefits will be the availability of a new, neutral, written PLM Syllabus as part of the overall Body of Knowledge.

This slide shows a very early draft prepared by the Professional PLM Working Group. It looks complex, but it probably has less than half the headings that will eventually be covered.

Until now there has been no visibility of “what PLM practitioners know”. The Syllabus is a first step to making this clear, in a way that practitioners everywhere can refer to.



Raising Standards - Professionalism

Think in a professional way

Structured Fast Track

The aim of the Fast Track is to refresh your implementation with new ideas, and to raise horizons with a clearer, more detailed emphasis on professionalism.

It is not a measure of progress or success, because there are other PLMIG tools that deal with those areas. Instead it is a discovery process that shows where a stronger focus on professionalism could make (usually rapid and inexpensive) improvements.

The method is to combine existing PLMIG functionality that comes with Membership with the new professional material within a straightforward and methodical process.

The process is interactive and adjusted for each situation around a core of:-

- a review of Professionalism as a concept and management practice
- an opening Question Set on approach, organisation, communication and control
- a review of documentation against best practice
- a cross-check against the parameters of [Demystifying PLM](#)
- application of the [Governance Standard](#) to clarify the high-level management environment
- a focused [Self-Assessment](#) to safely bring in the views of stakeholders
- latest results and material from the [Professional PLM Initiative](#)

This slide is borrowed from the PLMIG, which provides a structured 'Fast Track' to instil professionalism within a company's PLM operations. Here, it just shows some ideas to establish a professional way of thinking.

Thinking with a professional mindset costs next to nothing, and has wide-reaching effects. Working methodically; not cutting corners; documenting the implementation; demystifying the subject for stakeholders; building a high-level governance mechanism; thinking like a professional; testing and self-assessing – all combine to reduce problems and improve outcomes.



Benefits of a PLM Profession

Expanding Horizons

Expanding Horizons

Over time, a PLM Team tends to look inwards, drawn into the details of the implementation and the struggle to overcome problems.

Aligning to the demands of a Profession makes you step back and think more widely – expanding your horizons in terms of scope and time, which is where PLM thinking should be.



Expanding Horizons - DASAMASA

❖ Suppose these were consistent, worldwide:-

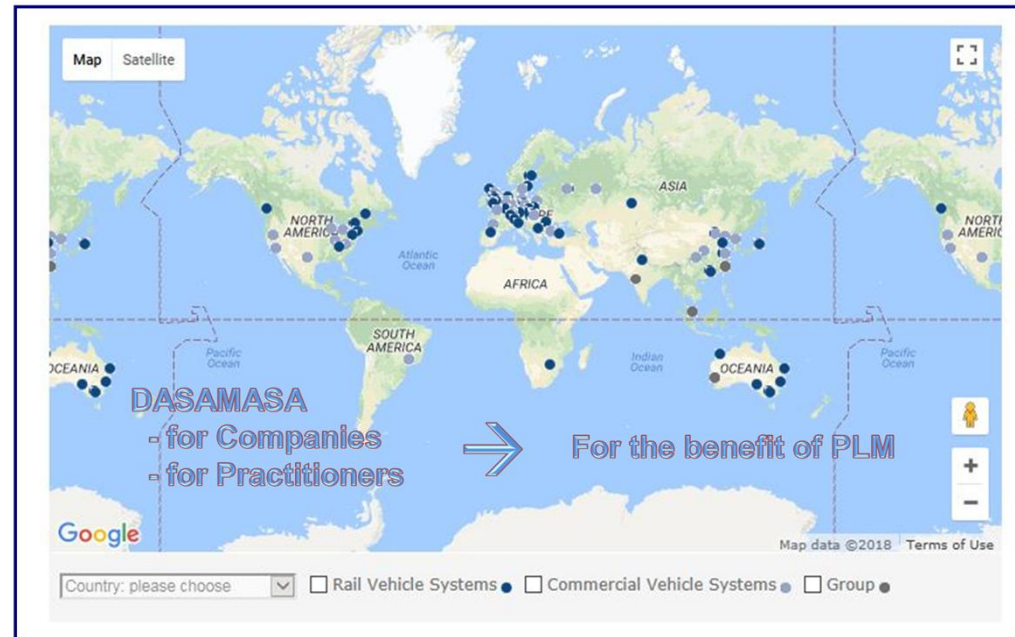
- The Case for PLM
- Elevator Pitch
- PLM in the USA
- PLM in India
- PLM in China
- Reaching 'Minority' Countries
- Liaison with Institutions
- Financial Value of PLM
- Case Studies
- User Groups / Communities
- Training / Certification Stds
- PLM Minimum Standard
- PLM Body of Knowledge
- PLM in the Digital Age

If there is only one Professional Body worldwide (Slide 11), then as it reaches to all of these issues, it will tend to introduce consistency. PLM will always be done differently in the USA than in India, but everyone will know why and how. 'Minority' countries, where PLM take-up is very low, would be drawn into greater understanding and adoption.

A PLM Professional Body could liaise with engineering and trade institutions around the world, expanding connections and sharing knowledge. Case studies could be normalised; user groups coordinated; and Digital qualifications established to equip PLM professionals for the future.



Expanding Horizons - DASAMASA



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This implicit global harmonisation will help corporations achieve their DASAMASA goals, as PLM in all of their sites becomes consistent, and operations are transportable. A global manufacturing strategy is easy to implement, and improvements at any site can be applied to all others.

A similar effect happens for PLM practitioners. It no longer matters where you learn your PLM – your skills will be accurate and relevant everywhere else. You earned your certification in Brazil, but are transferred to Norway? No problem. Your career becomes genuinely international, which is what PLM needs.



Expanding Horizons – Full PLM Maturity

Extract from the PLM Maturity Reference Manual

“Full PLM Maturity is the state in which all of the elements that are currently being developed as part of PLM are in place across the entire enterprise. The whole enterprise manages its products actively and seamlessly from the executive board down to the most detailed operational level, with commercial integration throughout the product chain.

Product-related data across the whole lifecycle is created once and presented to the right people in the right format and detail at the right time. People, processes and technology are integrated within the PLM framework, and are supported by a comprehensive and fully-integrated IT infrastructure.”

A professional approach looks to the future, as well as to the outside world. Where is your implementation going, how long will it take, and what will it look like when it reaches Full Maturity?

Working entirely to short- or medium-term plans, with no end Vision in sight, is not professional. PLM Maturity can be measured on a Scale of 1-5 (whichever criteria you choose); and when it is at Level 5 across the entire enterprise, you should have reached this Full Maturity state.

If you don't aim for it, you are unlikely to achieve it. A professional mindset helps get you there.

Professional PLM Initiative

➤ Q&A: What do you think?

So this is the quest for a recognised PLM Profession, and a brief overview of the benefits that it may bring.

If you have any questions, ideas, or feedback of any kind (positive or negative), then please contact me at the address on the final slide.

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DIGITALIZATION FOR SUSTAINABLE PRODUCT DEVELOPMENT AND MANUFACTURE