Webinar Q&A

In answering some of the questions that we didn't have time for during the webinar, I have also added a few additional comments to the questions I did answer in section 2.

If any further questions occur to you, please send drop me an email, or you might find the answers in my book, *The Executive Guide to Breakthrough Project Management*, or it's associated website – www.BreakthroughProjectManagement.com.

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1: Questions not answered on the webinar

Can we really compare prices of building materials/labour/etc. from 1931 to 2013 - on apple to apple basis?
No – any comparison is based on many assumptions! I used a range of indices to get a very approximate figure – hence the range. I used the US GDP, as well as the consumer price indices. These were very close (both were about x 15), which gives $1,700/m2. $2-3,000/m2 included a 50% error-factor.

Between 1996-2013 the Turner Building Cost Index was midway between CPI and GDP. I can't access the ENR construction cost index, but even with conservative estimations from other articles that reference this index, this too confirms 1WTC cost much more /m2 than the ESB.

However, time is easy to compare, and a large part of a project's cost is driven by duration – I don't believe faster should cost more.

The Empire State Building was built during the great recession, and as such did profit from some 'great deals'. But then 1WTC also was built during a recession following the Financial Crisis, so I don't think the availability of short-term bargains was a significant factor.

If CCPM brought such great results of improvement why was it forgotten about? For instance, did it only bring temporary improvement?

I didn't mean to give the impression CCPM itself has been 'forgotten'. Today, it is not that well known in construction because not many projects have used it. This is not the same for Project Alliance contracting, which has been successfully proven many times, but hasn't yet become mainstream.

I do know from companies where CCPM continues to be used, that the improvements from CCPM are not temporary. Many users have been using it for several decades.

In addition, as I mentioned, it is very hard to use CCPM across contractual boundaries with more traditional fixed-price contracts. You need a truly collaborative project team. You can work around this on a pilot project, but to implement business wide, you need to address the procurement and contracting side too.

In construction there have been a few successful 'pilots' that fizzled out. I mentioned Balfour Beatty (roads) during the webinar. There was also Denne Construction (houses) in the UK. In both cases the board didn't understand the potential, and so didn't insist on its use. Local managers were allowed to make their own decisions, so long as they delivered the numbers, and they were quite happy as they were. There was no real drive to improve performance or make the change.

I don't think it helps that universities and professional bodies don't seem to be aware of the real-world success of the method and it's potential. It gets a mention, but usually as just an alternative approach. New generations of staff are not aware of the method, so without the right management support, and integration into IT systems, it is difficult to maintain.

2: Questions answered on the webinar

Has CCPM been demonstrated/ successful for business change/ transformation projects?

I believe so. Several ERP implementations have used CCPM and are key parts of larger business change initiatives.

I know of one global electronics manufacturer, based in Japan, that implemented CCPM across their whole project portfolio (incorporating new product development, internal initiatives, IT developments, etc). They had just under 500 projects underway, and they took the radical step of freezing 90% of them. They allowed just under 50 projects to be worked on at a time. Their rate of project completion more than doubled within 6 months.

This was an example of resource overload across a project portfolio. This is very common where people try and keep busy. This well-intentioned action really slows projects down. The fastest project organisations do not try and keep everybody busy - just like the best manufacturing factories.

Are there any examples of CCPM being used in non-construction projects?

Most published cases studies are non-construction, where contracts are less of an issue. Its use is relatively rare in construction today – hence my campaign in increase awareness of it's potential!

I know of cases in manufacturing (large one-off's like ships and oil drilling rigs), maintenance, plant shutdowns, software development, R&D and new-product development, introduction of new products to market, multi-site operations (large teams carrying out many short installation & upgrade projects), and even to maximise the efficiency of a neo-natal baby care hospital. If you are interested, the main CCPM software providers websites have many client testimonials.

Do you think that today's environmental and health & safety requirements impact on planning and design effort as well as construction timescales significantly? Do we just have to accept a time and cost penalty to have these valuable protections?

Possibly – standards have consistently improved over the years, and I am sure this added work.

But I don't think it is a main reason for longer, more expensive projects. In automotive, cars today are much safer than Ford's Model T, but in real terms, I don't think they cost a lot more.

I think the non-collaborative nature of most projects is more significant. EH&S issues are not tackled holistically and creativity, so they are a 'bolt-on' to the project, rather than becoming an integral part of the process. When I worked in the chemicals industry, EH&S was a key project priority, and it was addressed as an integral part of running a project, and I can't remember it adding much to time or cost. It just became another part of the scope.

Is there a particular software that goes best with CCPM? Especially as Ian mentioned P6, MS Project etc. are 'obstacles' to adoption and use of CCPM.

Yes – you need to plan and control using CCPM-compliant software. Most capex projects are too big to add CCPM manually.

There are several, well established uniquely CCPM software companies, such as from Realization, Prochain, Exepron, A-Data, CMS Montera, & Being.

A few systems such as Aurora by Stottler Henke, and Sciforma have both critical path, and CCPM modules/variants.

Some traditional systems claim to be CCPM-compliant, but they aren't able to easily gather frequent progress feedback and to produce real-time priority signals and fever charts, so I wouldn't advise them. I would underline the value from CCPM is in the change in behaviours, and the software needs to support this.

Some products have integrated visual/Kanban functionality to manage more detailed, short-term work that is not included in the high-level dependency network (I know A-Dato, Being & Realization's systems do this).

Most CCPM software can import data from other planning systems and integrate to business management systems too. See other comments in response to the following question about Playbook software.

I wrote an article about planning software, and how if you look at CCPM-software websites, you find clients talking about how it helped them make demonstrable changes in duration ,cost and quality. When I looked at non-CCPM systems, they talked about more nebulous benefits like "better visibility", and "single version of the truth".
https://www.linkedin.com/pulse/pretty-reports-better-projects-ian-heptinstall/

Playbook is excellent software tool for covering most of what has been discussed including a lean approach.

I'm afraid I can't comment in depth, not having used Playbook.

From a quick look at their website, is seems to fall into the category of visual/Agile/Lean tools. In general, these are great for synchronising work in the short-term across teams. They mention buffers, but I don't know how they are used. I can't see what I would see as 'core' CCPM functionality. However, I accept there are other ways of achieving similar ends, so it might be close-enough for practical purposes. I know that *Liquid Planner*, whilst not a full CCPM system, does openly embrace task duration uncertainty, and has been used to support CCPM-thinking.

Agile/Lean, like CCPM, is harder to implement where significant work is contracted out – like on construction projects. These kinds of projects need a Project Alliance/IPD to really exploit the power of more collaborative planning and control methods.

There is some overlap between CCPM and Agile/Lean approaches to PMgt, especially relating to the issues to address and desired behaviours.

They are actually very compatible approaches – a topic I will be discussing on my next APM webinar in April. I'll make sure I look at Playbook before then! *https://www.apm.org.uk/event/real-world-project-management-series-critical-chain-lean-and-agile/*

How difficult is it in your opinion to applying CCPM to already up and running projects?

Sometimes easier than starting from scratch. There are several cases where CCPM has been used to turn around out-of-control projects. In those urgent cases, you don't need to "manage change", you can just insist!

If you just want to change, without the urgency, it also quite feasible. You can set up a CCPM-equivalent of the existing plan by importing key date into the CCPM planning system. You then change the nominal task durations and set up a buffer.

I recently proposed to do this for a €400M fast-track project in Scandinavia. Working with a software vendor, two of us would take a week to set up the CCPM plan up, brief the project leadership on the differences and how CCPM would help them during execution. Training is usually on-the-job and quite fast too, focussed on the needs of different role holders such as task mangers, resource managers, and project managers.

Because CCPM doesn't plan in too much detail, the team can be left to decide how to manage shorter-term activity lists. They could keep their existing methods, or often CCPM is implemented alongside visual/lean/agile methods for day-day management. I'll cover this topic in my next APM webinar.

Why do you feel that the alliance approach to projects has diminished?

I really don't know. To me it was a 'no brainer', and I don't see why anyone would choose to contract a capex projects in any other way! This is a point on which I disagree with UK government recommendations that alliances are suitable for the most complex of projects, and so-called traditional contracts are as good/better for all the rest. I also disagree that you need a long-term, multi-project alliance to get much benefit. Long-term is a great approach in some situations, but a single project can deliver enough benefit by itself.

After I was involved in working on an alliance in the late 1990's (leading a supplier team), I also helped projects to use them on several projects when I worked in procurement at a pharmaceuticals company.

I also sense that where alliancing has been used, it is often quite a 'heavy' implementation. Outside consultants are used extensively, and additional controls have been added to public-sector projects, without stripping out any of the pre-existing the bureaucracy. I think many also try and add alliance behaviours onto existing contract forms – something I advise against, it just adds complexity and risk. These add up to give the generic method a reputation of being 'difficult' – something it doesn't have to be (IMO).

On my first alliance, we did it with very little additional support – some training, a facilitated leadership team-building workshop, and some occasional coaching. At the time there were no 'experts', at least none we could afford! It was a relatively small project, and it went very well.

As an innovative idea, it is still very much in the embryonic stage, as is CCPM. Some 95% of projects don't use it, and people are not aware of it. Research has shown that good ideas don't simply take hold and spread across organisations, particularly if they are incompatible with existing approaches. It needs managing as a change, and few companies have done this yet.

In oil and gas, after the success of alliances on the CRINE initiative, I understand the oil price rose in the late 1990's, and the pressure was off capex teams, before the approach become embedded into business-as-usual. I know that BP used the method in Australia, which is how it became known in the public sector there.

In construction and capex there is a kind of 'vicious cycle' in place. The current methods lead to poor results and low levels of trust, which in turn makes working collaboratively hard to start – the natural reaction is to try and tie things down even more in your next contract, which leads to poor results, etc.

There is also a lot of inertia behind the existing methods. They are embedded into training, procedures and systems, and it would take a major transformation project to change most organisations.