Governance of projects: A success factor or constraint for effective project delivery? ¹

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INTRODUCTION

In an editorial by the Editor of Project Management World Journal (PMWJ) (Pells, 2021) with the title: “Project Management needs a Higher Purpose Part 3: The Future of the Planet, Civil Society, Doing the Right Projects, What about Governance and the Power of Why”, Pells asks the question: “Does governance of programs, projects or project management really work?”

Since my retirement from my permanent job at the end of 2018, I have been reflecting on my career as an organisational project management practitioner and have been publishing some opinion articles in the PMWJ (Smit, 2019, 2020, 2021, and 2021a). In this opinion article, I specifically would like to share an opinion about the governance of projects reflecting on the latter part of my career of some 45 years.

The aim of this article is to:

• Give a high-level overview of project governance.
• Respond to the question: “Governance of projects: A success factor or constraint for effective project delivery?” by:
  o Briefly sharing a case of the construction of two power station mega-projects in South Africa that are problematic.
  o Sharing some observations on the governance of projects that I made during the latter part of my career.
• Make some concluding remarks.

Keywords: project governance; project delivery, mega-projects case

HIGH-LEVEL OVERVIEW OF PROJECT GOVERNANCE

The high-level overview of project governance in this section is mainly based on a literature review I did on project governance in 2015 as part of my PhD thesis, as well as a featured paper by myself (Smit, 2017) with the title: “Development of a project portfolio management model for executing organizational strategies” that was published in PMWJ (please see the References in this paper from which the content of this high-level overview was derived). The high-level overview also includes some key points about the governance of mega-projects as discussed in a podcast by Flyvbjerk during a Better Boards Podcast Series (2020).

Definition of corporate governance

A definition for corporate governance according to the Organization for Economic Co-operation and Development (OECD) Principles of Corporate Governance is:

“Corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.”

Differences between the functions of governance and management

There is often confusion about the difference between the functions of governance and management. The five functions of management are to:

- Forecast and plan.
- Organize.
- Command or direct (lead).
- Coordinate.
- Control.

Good governance is achieved by integrating, coordinating, and balancing the following six functions:

- Determining the objectives of the organization.
- Determining the ethics of the organization.
- Creating the culture of the organization.
- Designing and implementing the governance framework for the organization.
- Ensuring accountability by management.
- Ensuring compliance by the organization.

Implementation of a governance framework

The implementation of a governance framework in an organization consists of five main themes:
- Governing relationships.
- Governing change.
- Governing the organization’s people.
- Financial governance.
- Viability and sustainability.

The role of strategic planning

The strategic plan is a key interface between the governing body and the management with shared responsibility to develop an effective strategy for management to implement. The governing body appoints management, provides direction to, and oversees the functioning of the organization’s management, and makes the rules the organization’s management and staff are expected to conform to. Management’s job is to achieve the objectives of the organization, working within its ethical and cultural framework whilst complying with the rules and providing assurance back to the governing body that this is being accomplished. Strategic planning sets the context within which portfolio management operates.

Governance of portfolios, programs, and projects

The governance of portfolios, programs and projects is an integral part of the governing change theme. Portfolio governance is established by a governing body to make decisions about investments and priorities for the portfolio and ensures that portfolio management processes are followed to sustain the organization. The effectiveness of governance is based on how well the organization enforces current standards, policies, and processes; and how well the organization implements change. Effective governance must promote and support a culture of value, such that the organization has a shared understanding what constitutes value for the organization, clearly defined roles, responsibilities and accountabilities, processes, and practices around value management, with active benefits and change management, and relevant metrics.

Why is effective governance and management important?

Governance, when well-understood, carefully planned, and thoughtfully executed, can be one of the most crucial drivers of growth. In many situations, particularly associated with the governance of programs and projects, the governing of organizations is far from effective. The number of resources wasted by ineffective and competing management groups can be significantly reduced if the organization’s objectives, ethics, and culture are sound. Strong governance is thus needed to make portfolio management work.

Executive management is responsible for creating an organization capable of achieving the objectives defined by the governance system. They also have responsibility for providing assurances to the governance system that resources of all types are being effectively and ethically used.
Elements of the project delivery system that supports governance

The project delivery system has the capability to deliver programs and projects successfully, including the portfolio management sub-system, and the organizational change sub-system. Four interrelated elements are required to support governance of programs and projects. These elements are:

- Portfolio management.
- Program/project sponsors.
- Strategic and/or Enterprise Project Management Office (EPMO).
- Effective program and project management.

Portfolio management focuses on selecting the right programs and projects to start or maintain, and which to defer or cancel. Portfolio management supports the overall governance processes by balancing the workload against the organization’s capability and capacity to undertake the work and ensures an appropriate mix of high-risk, high-return programs and projects. The portfolio management function gathers and validates the capability and resource availability; applies the policies, procedures, methods, and criteria to make and implement effective decisions; and continuously review, learn, and improve portfolio management.

The program/project sponsor is a critical link between the executive and strategic levels to ensure that business benefits are identified and realized and provides support to program and project managers, and the project teams to fulfil their roles effectively.

The contribution of the Strategic and/or EPMO ranges from providing internal consulting services, organizational project management knowledge, and application of a clear set of project process performance standards for portfolio, program and project work; monitoring and controlling of program and project performance; and ensuring that accurate interpretive and predictive assessment information is available to senior and executive management to support the portfolio management decision-making process.

Effective program and project management require that project managers create the outputs and deliverables as efficiently as possible, while working ethically and in accord with the organization’s practices and procedures to achieve the organization’s strategic and tactical objectives.

Project governance must ensure that:

- An appropriate project organization is in place to undertake projects.
- Decision-makers at each level are accountable to higher-level management for key decisions.
- The application of any organizational constraints, such as standards and components to be used are supported by an appropriate assurance system.
Governance of mega-projects

During a Better Boards Podcast Series in a podcast by Flyvbjerg (2020) about mega-projects, Flyvbjerg made the following important comments:

- **It is important for boards not to delegate mega-projects.** Mega-projects are too big, complex, expensive, impactful, and consequential for an organisation and therefore boards cannot leave them out of sight. Mega-projects need special oversight and therefore they should not be delegated to the CEO who further delegates these projects down in the organisation. One mega-project going wrong can destroy the organisation. A board’s first responsibility is towards the interest of the organisation and thereafter the shareholders and other stakeholders.

- **A culture that encourages the reporting of bad news quickly should be cultivated.** Mega-projects are complex and therefore there will be bad news. The sooner bad news is reported, the sooner it can be dealt with and the better it will be for the organisation. People reporting bad news about what is going on should be welcomed (do not kill the messenger). Boards should not be isolated from bad news and therefore need an early warning system and incentive structure to reward the early reporting of bad news. Early delays and cost overruns need to be escalated quickly. If these are hidden and not given the required attention, mega-projects can lead to disasters.

Flyvbjerg (2020) highlighted three points that will result in the unsuccessful delivery of mega-projects:

- **A bad business case** that is not implementable will fail, as well as a bad business plan. A mega-project needs a detailed business plan and proper front-end planning before starting with project delivery. Mega-projects should not be implemented early unless proper front-end planning has been done.

- **Not having the right people/team** with the required experience in place to deliver the project.

- **A governance structure that is not right for the project** to get the right outcome.

Summary and conclusion

Governance, when well-understood, carefully planned, and thoughtfully executed, can be one of the most crucial drivers of growth. The following contribute to effective project governance in an organization:

- Clear and continued communication of organizational goals and objectives within a framework of sound organizational ethics and culture.

- Good collaboration between governance boards, executive management, strategic management, portfolio management, program and project management, and operations to ensure that the right programs and projects are selected that will deliver the most optimum sustainable business value. This also includes which programs or projects must be deferred or canceled.
• Enforcement and application of appropriate portfolio-, program-, and project-management methodologies/approaches, organizational policies, standards, procedures, processes, etc. to ensure that change is implemented well.

• Promotion and support of a culture of value where:
  o All stakeholders behave in an ethical and respectful manner.
  o Roles, responsibilities and accountabilities, processes, and practices around value management are clearly defined with active benefits and change management, and relevant metrics.
  o The reporting of bad news is encouraged, and quick and decisive action is taken.

The following project governance issues negatively impact effective project delivery:

**Mega-projects**

• Boards that delegate mega-projects to the CEO, and the CEO who further delegate these projects down in the organization, without proper direction and adequate oversight by the board.

• Starting with the execution of mega-projects without a detailed business plan and/or proper front-end planning.

**Programs and projects**

• Business cases that are not accurate and/or implementable and/or do not support the organizational goals and objectives.

• Insufficient resource planning and/or not having adequate resource capacity and capability to deliver all the approved programs and projects.

• Different divisions/departments/management groups competing for limited finances and resources could lead to resources not being effectively and ethically used.

• Governance structures that are not right for the specific programs and projects to achieve the right outcomes.

• Inexperienced program and project sponsors not fulfilling their roles as the critical link between the executive and strategic levels to ensure that business benefits are identified and realized and not providing adequate support to project managers and their teams to fulfill their roles effectively.

• Strategic and/or EPMOs not properly monitoring and controlling program and project performance to ensure that accurate interpretive and predictive assessment information is available to senior and executive management to support the governance decision-making process.

• Program and project managers not adequately applying the organizational methodologies/approaches and the organization’s practices and procedures to create the outputs and deliverables as efficiently as possible to achieve the organization’s strategic and tactical objectives.
GOVERNANCE OF PROJECTS: A SUCCESS FACTOR OR CONSTRAINT FOR EFFECTIVE PROJECT DELIVERY?

Is the governance of portfolios, programs, and projects effective?

Pells (2021) mentions that public scandals and public corruption of various corporations have resulted in changes to legislation in the USA, UK, Europe, Australia, and other countries. Pells (2021) further states that the changes in corporate governance laws led to the attention of governance of projects and project management. Regarding the alignment of project strategies and project management with corporate governance and the issue of project ethics, Pells (2021) expresses the opinion that the current project governance guidelines may be inadequate for five main reasons:

- Morality of ethics is not adequately covered.
- The link between organisational strategies and corporate mission (and corporate responsibilities and governance requirements) are often weak or missing that could lead that the “right” projects are not selected or supported.
- Current project governance models and guides do not always work in the real world of project business.
- Many executives have little or not enough knowledge of project management, let alone program- or portfolio- management, project sponsorship, project governance, strategic alignment, etc.
- Many guides, models, policies, and statements are too general as many concepts and issues, including governance and social responsibility can be quite complex.

The abovementioned points made by Pells are certainly valid as discussed below in a brief case of two mega power station construction projects in South Africa that are problematic.

Do directors serving on boards have the key competencies for directing and overseeing mega-projects?

According to the Australian Institute of Company Directors’ Director Tools: Board Competencies for Directors, a board is responsible for ensuring that it has represented on its skills the knowledge and experience needed to effectively steer the company forward. This document refers to Kiel et al. that talks about the competencies of a director being the experience, knowledge, skills, attitudes, values, and beliefs of the person. They provide the following framework for considering these competencies:

- **Industry**: Experience in and knowledge of the industry in which the organization operates.
- **Technical**: Technical/professional skills and specialist knowledge to assist with ongoing aspects of the board’s role.
- **Governance**: The essential governance knowledge and understanding all directors should possess or develop if they are to be effective board members. Includes some specific technical competencies as applied at board level.
• **Behavioral.** The attitudes and competencies enabling individual board members to use their knowledge and skills to function well as team members and to interact with key stakeholders.

**A BRIEF CASE OF TWO MEGA-PROJECTS IN SOUTH AFRICA**

**Brief background**

Eskom Holdings Limited (Eskom), the electricity utility in South Africa, is a vertically integrated operation that generates, transmits, and distributes electricity. The ownership of Eskom vests in the South African Government who is the sole shareholder. Eskom generates more than 90% of South Africa’s electricity. The power and authority to lead, control, manage and conduct the business of Eskom, including the power and authority to delegate, is vested with the Board to ensure that Eskom remains a sustainable and viable business of global stature.

From the mid-1970s to the mid-1990s Eskom embarked on a massive build program that included the construction of eight major coal-fired power stations ranging from 3000 MW to 4111 MW, two pumped storage schemes of 400 MW and 1000 MW, and one nuclear power station of 1860 MW. As a youngster in the 1980s, I was fortunate to be involved in the construction of two of these coal-fired power stations where I gained a lot of my project management experience.

During the transition to a new South Africa in 1994, the spare electricity capacity was more than 30%. The price of electricity in South Africa was amongst the cheapest in the world. In 1998 the Electricity White Paper was released with the purpose to unbundle parts of Eskom and plans to bring in competition in the generation sector by Independent Power Producers (IPPs). This plan however did not materialise. A key focus was government’s electrification program with the aim to provide electricity to many South African households that did not have access to electricity. My view is that it would have been very difficult for IPPs to invest capital to build new generation capacity and make a profit based on the low electricity tariffs in the 1990s. In the late 1990s it became evident that the availability of spare capacity has reduced due to the government’s electrification program and increased electricity demand in South Africa. When Eskom approached government to embark on the building of new generation capacity it was turned down by government as cabinet wanted to introduce private competition that did not materialise.

In 2004 Eskom embarked on the Revised Business Model (RBM) to align Eskom with Government’s new restructuring strategy and policy. The RBM was developed to ensure that the organisation would remain robust and be ready to meet current and future challenges. Another important feature of the RBM was that Eskom retains its competitive edge and position itself to capitalise on unfolding opportunities in South Africa, the SADC region, and ultimately the rest of Africa (Eskom, 2005). The RBM was based on the principles that Eskom will initiate the new-build programme to address the required new generation and transmission capacity. I was fortunate to be part of a workstream and lead a multidisciplinary team to develop and obtain authorization of the Project Management Policy, the New-Build Project Life Cycle Model (PLCM), standards, guidelines, etc. required to prepare for the new-built programme in Eskom. This work-stream worked under the guidance of a Steering Committee consisting of a workstream
sponsor and senior managers representing each Division in Eskom. One of the EXCO members was appointed as the Executive Sponsor.

On conclusion of the RBM, projects were approved to construct two open-cycle gas turbines (OCGTs) power station plants with a total capacity of 1000 MW, as well a wind farm of 100 MW. It was also decided to return to service three old power stations that were “mothballed” 15 years ago to contribute a further 3600 MW. Approval was given for the construction the Ingula pump storage scheme of 1332 MW. All these projects were completed and are in operation.

The new-build program also included the approval for the construction of the following two mega-projects:

- Medupi Power Station the world’s biggest dry-cooled coal-fired power station with six units that together generate 4764 MW.
- Kusile Power Station consisting of six coal-fired generating units with a total generating capacity of 4800 MW with flue-gas desulphurisation (FGD) technology.

Much has been and is still written about these two troubled mega-projects in South Africa.

**Time delays**

- Medupi was planned for completion not later than 2015 and Kusile two years later.
- Medupi’s last unit only went into commercial operation in the second half of 2021. Unfortunately, a major incident happened on one of the units after this date. Eskom (2021) reported that the generator at Medupi Unit 4 exploded on 8 August 2021 with extensive damage to the generator and associated systems. Eskom (2022) stated that recovery plans are in progress with a targeted return to service date of August 2024.
- Eskom (2022) reported the following: Three of Kusile’s units are in commercial operation. The fourth unit was synchronised onto the national electricity grid at the end of 2021. It is expected that commercial operation of this unit will be achieved mid-2022. The latest Eskom Board approval target dates for the completion of last two units are December 2023 and May 2024.

**Cost overruns**

- Eskom (2007) mentioned that the cost of building just one major base-load power station in the new expansion programme is about R80 billion.
- According to Eskom (2021) the estimate at completion (EAC) for Medupi is in the order R145 billion which excludes FGD with an estimated cost of R38.4 billion.
- Eskom (2021) further mentions that the EAC for Kusile is R161.4 billion which includes FGD.

Note: Approximate currencies rations on 24 February 2022: One USD = 15.29 ZAR; one GBP = 20.49 ZAR.
Poor plant performance

- Both these mega-projects are beset by various technical problems that have resulted in extremely poor plant performance that will take time and money to address. Eskom (2022) stated that they are correcting all the major boiler plant defects (i.e., mills, gas air heaters, fabric filters, air- and flue-gas ducts, and reheaters) at both Medupi and Kusile and that the repairs will be done as unit planned outages (shutdowns) become available. Eskom (2021) stated that the estimated cost to correct these defects ranges between R5.6 billion and R7.2 billion (excluding amounts to be recovered from contractors).

Other serious issues

- Various reports found corruption and mismanagement at Kusile. The Board has expressed its commitment to rooting out fraud and corruption and is addressing issues related to past corporate governance breaches in order to restore Eskom’s reputation as a trusted corporate citizen.

Key implications for Eskom

The information that follows was obtained from Eskom’s Annual/Integrated Reports and/or Presentations as well as a System Status and Outlook Briefing Presentation (Eskom, 2007, 2021, 2021a, and 2022).

Plant performance of the power station fleet

The Energy Availability Factor (EAF) percentage, one of the key plant performance measures of Eskom’s power station fleet, was 89.50% in 2007 which deteriorated significantly over the years to 64.19% in 2021.

Financial viability of Eskom

The debt-equity (including long-term provisions) of 0.30 in 2007 deteriorated to 2.03 in 2021. Eskom’s current debt level is just less than R400 billion. This amount would have been much higher if was not for the South African Government that has made significant contributions towards debt servicing over the last number of years of more than R100 billion. In 2007 Eskom’s credit rating by Standard and Poor, Moodey, and Fitch was “stable”. In 2020 it was downgraded to “sub-investment level”.

According to an article in Bloomberg written by Prinsloo (2022), Eskom’s financial woes, caused mainly by a massive overspend on the construction of two of the world’s biggest coal-fired power plants, have led to it cut expenditure on maintenance and new capacity. The country has been beset by intermittent power outages (load-shedding) for over a decade. The article mentions that Eskom has said that it needs to cut its borrowings to about R200 billion to be sustainable.
Key implications for South Africa

*Increase of South Africa’s debt and resultant downgrades in South Africa’s credit ratings*

The bailouts from the government have severely worsened the state’s fiscal and debt situation which have resulted in several credit rating downgrades by the International Credit Rating Agencies. The local and foreign currency credit ratings outlooks by Standard and Poor, Moody, Fitch are all “negative”.

South African’s Finance Minister, Enoch Godongwana, delivered SA’s Budget Speech on 23 February 2022. Information from this speech indicates that the current government debt is about 70% of gross domestic product (GDP) and that the consolidated fiscal deficit is now seen at 5.7% of GDP. Fortunately, South Africa has benefited from the boom in the commodity prices which will help reducing debt and lowering fiscal deficits.

*Impact on South Africa’s economy due to the shortage of electricity and load shedding*

The shortage of electricity and resultant sporadic load shedding since the late 2000s had a severe impact many businesses and South Africa’s economy. It is very difficult to determine the real damage done to the economy in monetary value.

**CONCLUSION**

It can thus be concluded that the poor governance and management of these two mega-projects have significantly contributed to the poor performance of Eskom’s power station fleet, Eskom’s financial viability, as well as South Africa’s economy and debt and credit ratings.

**OBSERVATIONS I MADE DURING THE LATTER PART OF MY CAREER ON THE GOVERNANCE OF PROJECTS**

Observations relating to governance of the two mega-projects mentioned above

Some of my observations (perceptions) why I think that these mega-projects are problematic that relate to the governance of these projects are:

- It does not seem that there was an adequate number of directors that have served on Eskom’s Board since the commencement of the new-build program in the mid-2000s that possessed the key competencies for directing and overseeing these mega-projects.

- These mega-projects were initiated far too late. At that time the reserve electricity capacity was already below the required 15%.

- Persons without adequate program and project management knowledge, qualifications/certifications, and experience were appointment in top and senior management positions to lead and management these mega-projects. Very few of the experienced human resources with the required skills, knowledge, and qualifications that
were still in the organisation that participated in the previous power station construction program from the mid-1970’s to mid-1990s were involved to share their knowledge and experience.

- Policies, standards, procedures, guidelines, the New-Build PLCM, and associated processes based on recognised international standards that were developed and approved and authorized during the RBM by top management for the “new-build” program were not adequately applied. For example, there was political and stakeholder pressure to start with the execution of these mega-projects without adequate planning and application/consideration of the activities in the concept and definition phases as outlined in the New-Build PLCM.

- No adequate strategic thinking was applied to establish the most appropriate contracting strategies and approaches to be followed to successfully execute and deliver these mega-projects.

- Over complex project systems and structures consisting of international and in-house personnel with overlapping roles and responsibilities during the execution phase (e.g., discipline project managers, discipline engineering managers, contract managers, quality managers, etc.). Once again, the New-Build PLCM was not adequately applied. Many of the personnel appointed did not have adequate experience in the management of such complex mega-projects and the South African culture.

- Political and ethical issues on which I do want to expand too much – Much has been published in the press in South Africa over several years regarding alleged “state capture” and “corruption”.

Observations relating to other major, medium, and small projects

Some other observations that I have made during latter part of my career in organisational project management that can be contributed to poor project governance include:

- At times the link between strategic planning, business planning and portfolio management is not adequate to ensure that the right programs and projects are selected that will deliver the most optimal business value to achieve an organisation’s strategic goals and objectives.

- To obtain approval for programs and projects many times there is a tendency of understating costs and overstating benefits in business cases.

- It often happens that too many programs and projects are approved for execution without considering if the organisation has adequate human resource capacity and capability to deliver these programmes and projects successfully.

- Many times, members serving in governance bodies related to the approval of programs and projects (e.g., investments committees, tender committees, technical approval bodies,
etc.) lack the required project management knowledge, skills, and experience to ensure successful program and project delivery.

- Governance bodies many times are a constraint for programs and projects. These bodies slow down the flow of project work that contributes to delays as they mostly meet at predetermined intervals (e.g., once a month, once in two months, and sometimes only every three months depending on the level of the committee).

- Program and project life-cycle process are not adequately applied to ensure that programs and projects are carefully planned and executed.

- Most programs and projects are monitored in terms of their time, cost, and quality/performance objectives. Benefits are many times not managed and monitored to ensure that the organisation realise the value as outlined in the business cases, especially after program and project completion.

- The information technology (IT) systems and/or Enterprise Resource Planning (ERP) systems that integrate the processes of all the various functions involved in the delivery of projects are not always properly set up or integrated. This could mean that relevant information (e.g., KPIs) required for governance decision-making are not accurate or readily available to monitor and oversee the successful delivery of programs and projects. Many times, the data required in these systems are not populated as external systems and data bases (e.g., Microsoft Excel) are used to manage portfolios, programs, and projects.

CONCLUDING REMARKS

Boards of organisations undertaking mega-projects must be held accountable for the successful delivery of these projects as a mega-project going wrong can destroy an organisation. The composition of boards should be as such that some of the directors have the required qualifications, knowledge, skills, and experience to oversee and ensure the successful delivery of mega-projects. Boards need to ensure that persons with the required qualifications, knowledge, experience, and personal capabilities are appointed to manage mega-projects. Boards also needs to ensure that that adequate governance structures are established for mega-projects and that a culture of reporting bad news quickly is cultivated. Approval for executing mega-projects should not be given unless proper front-end planning has been done.

The case discussed in this paper has raised the following question in my mind: “Does the poor governance of mega-projects not rather destroy value for organisations instead of creating value?”

REFERENCES


About the Author

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Martin Smit is retired and continues to learn to keep abreast of the latest advancements in organizational project management. His career spanned some 45 years. He worked for Eskom, the electricity utility in South Africa, for 39 years where he held various management positions in construction-, outage-, maintenance-, and project/program- management. During the latter years Martin worked in the Eskom Project Management Office (EPMO) as an Organizational Project Management Specialist. He has extensive experience in the development and application of project-, program- and portfolio- management methodologies, processes, and best practices.

Martin is certified as a facilitator to conduct project definition readiness assessments. He is also certified to facilitate learning, conduct outcomes-based assessments and moderation. Martin has developed and presented various project and outage management training courses.

Martin holds a MSc (Management of Technology and Innovation) from the Da Vinci Institute in the domain of Project Management and a PhD in Engineering from the North-West University in the field of Development and Management Engineering. The title of his thesis was: “Development of a project portfolio management model for execution organizational strategies: A normative case study.” He also has qualifications in civil and mechanical engineering, information management, management, and maintenance practice. Martin has been a Project Management Professional (PMP®) since 1992 (No. 1071).
During his career Martin has presented various papers at national and international conferences and he has also published some articles in international journals.

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