Health and safety management

1. Executive summary

Safety Management Systems (SMS) are central to how the rail industry controls risk, assures safety and drives continuous improvement. ORR expects dutyholders to maintain an SMS that complies with the *Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS)* and demonstrate continuous improvement using the *Risk Management Maturity Model (RM3)*.

Industry performance in 2024–25 shows that progress has been made in leadership and incident learning, but weaknesses persist in fatigue risk management, risk assessment, change control and asset integrity.

These challenges come at a time of significant organisational and sector reform. The transition toward Great British Railways (GBR) and wider operational pressures increase the importance of maintaining effective SMS that can manage both day-to-day and emerging risks.

Raising SMS maturity remains essential to sustaining high safety performance. Dutyholders should expect continued emphasis on applying RM3, improving assurance and learning, and demonstrating measurable progress toward Predictable and, ultimately, Excellence.

To support consistent improvement, ORR's regulatory focus will centre on three strategic themes to guide dutyholders towards building resilience and accountability across their operations:

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2. Our view of the risk

What the risk Is and who It affects

SMS underpin safe railway operations. They determine how effectively dutyholders identify, assess and control risks in a complex environment involving passengers, staff, contractors and the wider public. Operating a railway is inherently complex and high risk, and without an effective SMS, consequences can include harm, operational failure, reputational damage, loss of public confidence, and regulatory action.

Why SMS matters

Managing SMS risk is critical to maintaining safe outcomes, legal compliance and organisational resilience. Where SMS arrangements are weak, poorly implemented or inadequately assured, dutyholders lose effective control of safety risk, particularly during operational pressure or organisational change. This increases the likelihood of harm, regulatory non compliance and enforcement action.

SMS maturity has a direct impact on safety and operational performance. When systems are inconsistently applied or poorly assured, risks escalate across:

These risks affect all rail sectors (mainline, non-mainline and heritage) each facing different pressures but connected by the same requirement: a mature, resilient SMS capable of preventing harm and adapting to routine and emergent risks.

Current SMS maturity and what we see across the sector

ORR uses inspections, audits and risk intelligence (including RAIB reports, industry data and risk profiling) to identify systemic weaknesses and target regulatory activity. Findings are benchmarked against RM3 to assess maturity and improvement needs. Non-compliance may lead to enforcement.

Industry-wide SMS maturity remains largely at the "Standardised" level, with pockets of Predictable performance. This indicates structured processes exist but are not consistently applied. Refer to the Appendix for detailed industry performance broken down by sector.

ORR regularly identify cross-industry weaknesses in the following SMS areas:

- Fatigue risk management (underdeveloped)
- Outdated or inconsistent risk assessments
- Weaknesses in change control (operational, organisational, engineering)
- Variable competence management
- Inconsistent assurance and audit practice
- Gaps in asset integrity processes

- Inconsistent contractor and supplier oversight

These weaknesses reduce both safety and resilience, particularly during operational pressure, resource constraints or organisational change.

Case study: Management of contractors (ad-hoc maturity)

Evidence from inspections of a train operator and infrastructure manager identified Ad hoc maturity in arrangements for the management of contractors at station locations. Although processes for contractor access and control existed, roles and responsibilities, particularly for Work Access Permit (WAP) issuing, were not clearly defined or consistently understood. Permits were issued off site, and there was limited assurance that contractors had been appropriately signed in or briefed on site specific risks.

There were weak interfaces between estate management, permit issuers, frontline station staff, and contractors. Information about the nature and risk profile of the work was not consistently shared, and contractor risk assessments were generic, insufficiently reviewed, and not updated when circumstances changed. This resulted in work being authorised under inappropriate arrangements and without effective challenge or escalation.

Long standing supplier relationships were managed informally, with limited structured oversight, monitoring, or routine engagement. This contributed to complacency in contractor assurance, heavy reliance on third parties to manage risk, and unclear supervision arrangements. Overall, control of risk relied on individual judgement rather than demonstrable system assurance, increasing vulnerability to incident and regulatory intervention.

ORR engaged with the duty holder to test contractor management arrangements and seek assurance that responsibilities for contractor access, permitting and supervision were clearly defined and consistently applied. Follow up activity focused on improving the quality of risk assessment, strengthening oversight of suppliers, and ensuring more effective assurance where work is commissioned and delivered at station locations.

Forward-looking risk: emerging trends and pressures

Cost and resourcing pressures continue to influence dutyholders' ability to maintain SMS effectiveness, affecting the quality of risk assessments, fatigue management, assurance and monitoring. These pressures increase vulnerability and reduce organisational resilience.

Industry change (GBR transition) introduces additional risk such as unclear responsibilities, changing interfaces, and the need to maintain SMS integrity during organisational restructuring. While consolidation under GBR presents opportunities to improve consistency and assurance, it also requires careful management to ensure clear accountability across both the emerging GBR SMS and individual Train Operator SMSs.

ORR is supporting the transition through dedicated regulatory activity, including safety certification and authorisation work to be undertaken during the 2025–2027 period. This includes engagement on a total of eight safety certificate and authorisation applications, providing structured challenge and assurance to support a controlled transition while maintaining effective management of health and safety risk.

RM3 learning and ORR Risk profiling show recurring issues across cultural maturity, assurance and change management. Without improvement, these weaknesses restrict system-wide learning and limit the ability to respond to new hazards.

ORR's view is that strengthening SMS maturity remains essential for navigating both present and future risk pressures. Dutyholders must ensure their SMS is ready for future reform and organisational change, not only today's operational demands.

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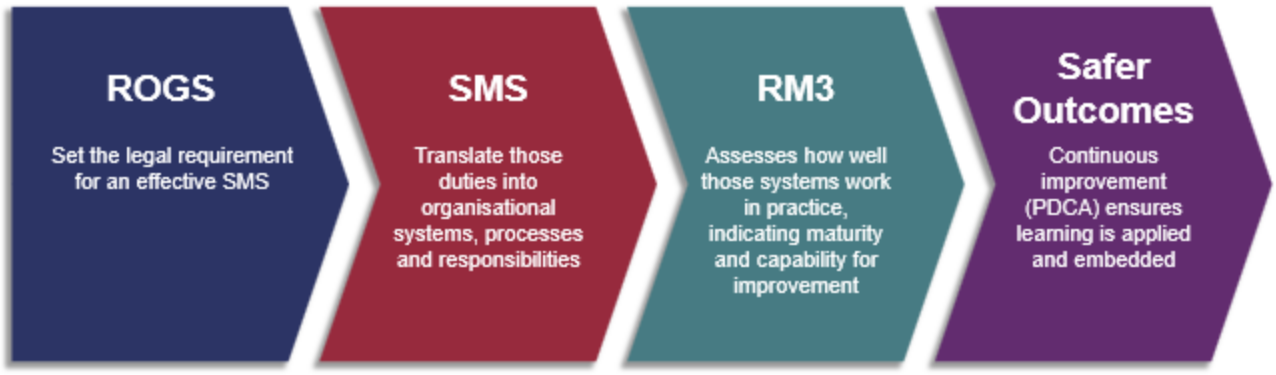
3. Compliance expectations

How law, systems and maturity link to safer outcomes

The elements described below operate as a joined-up pathway from legal duties to real-world safety outcomes:



Together, these elements determine whether dutyholders deliver safer outcomes for passengers, staff, contractors and the public.

What ORR expects to see as good practice

Good practice means SMS are proactive, adaptive and capable of learning, going beyond minimum compliance.

Legal requirements for SMS

The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) set the mandatory legal foundation for Safety Management Systems. Dutyholders must establish and maintain systems that:

- Identify, assess and control risks
- Manage competence, monitoring, review and control of change
- Support learning from incidents
- Are proportionate to the nature and complexity of operations
- Remain effective during operational and organisational change
- Are not only documented, but implemented in practice to secure safe outcomes

Where serious deficiencies are identified, ORR may use statutory powers under the Health and Safety at Work etc. Act 1974 and ROGS, including Improvement Notices, Prohibition Notices and prosecutions.

Find out more information on ORR's enforcement policy.

Supporting frameworks

ORR recognises the value of established frameworks such as HSG65 (Managing for Health and Safety) and ISO 45001 (Occupational Health & Safety Management Systems), which promote integration of safety into business processes and support organisational resilience and maturity.

ORR's oversight, supervision and enforcement

ORR's overarching goal is a safer railway, with zero workforce and industry-caused passenger fatalities. Achieving this requires more than minimum compliance – it demands SMS that are proactive, adaptive and capable of learning. By operating consistently above the minimum threshold, dutyholders can ensure they remain compliant, even under circumstances that might put the application of the HSSM under stress.

The Risk Management Maturity Model (RM3) defines the key components of an effective SMS and provides a structured framework for evaluating organisational capability. It supports both

regulatory assessment and industry self-evaluation, helping dutyholders identify strengths, target improvements and plan strategically.

ORR combines proactive supervision with reactive investigation, using inspections, audits, RAIB reports, industry data and risk profiling to shape its annual supervision plan and benchmark performance against RM3.

To strengthen oversight, ORR is also investing in digital tools such as the Inspection App, enabling real-time data capture and better integration with risk intelligence systems. These innovations support targeted supervision and help identify systemic risks across sectors.

ORR's regulatory priorities for the year ahead

To ensure SMS deliver consistent, effective risk control and continuous improvement, ORR's focus for the coming year is to:

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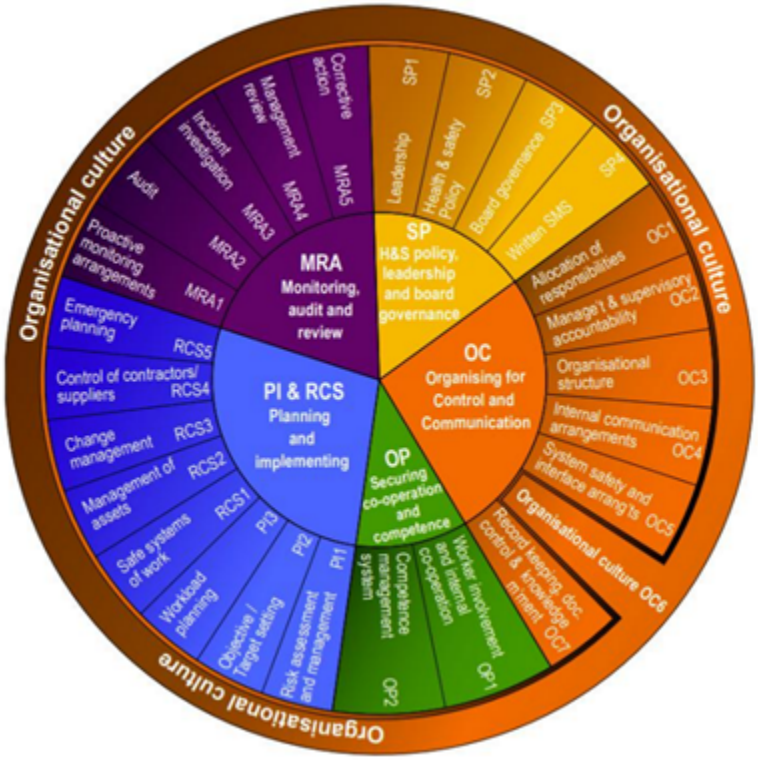
4. Continuous improvement

Using RM3 to drive continuous improvement (current)

RM3 should be used as a strategic improvement tool, not simply for compliance. Regular maturity assessments help dutyholders identify gaps, prioritise actions and track improvements. RM3 is

designed to comprehensively assess all elements of the HSMS.



RM3 defines criteria for achieving different levels of maturity against each HSMS element. ORR encourages dutyholders to show measurable progress in RM3 maturity, moving from Standardised toward Predictable and, ultimately, Excellence. Improvement should be visible in leadership, assurance, governance and operational delivery.

SMS must reflect the realities of day-to-day work, not only documented procedures. Continuous improvement should demonstrate that controls are applied consistently in practice.

Improvement should follow the Plan–Do–Check–Act (PDCA) cycle to ensure changes are embedded, evaluated and refined.

Using RM3 for Continuous Improvement

- ✓ Annual RM3 self-assessment
- ✓ Clearly prioritised RM3 criteria for improvement
- ✓ Improvement plan with milestones and evidence
- ✓ Regular check-ins and updates to RM3 maturity

Targeted actions to strengthen SMS

ORR expects dutyholders to focus improvement efforts on the areas where weaknesses are most frequently identified:

More robust arrangements bring clear benefits: stronger decision-making, more effective responses to emerging risks and improved organisational resilience.

Preparing for future ROGS developments (future)

ORR's work to update ROGS guidance and digitise permissioning will clarify expectations and modernise processes. Dutyholders should monitor developments and consider early adjustments to their SMS.

The ongoing RM3 review will strengthen cultural maturity measures and Human & Organisational Factors. Dutyholders should plan to incorporate updated RM3 criteria into future improvement plans.

Strengthening safety culture and learning

Effective continuous improvement relies on a mature safety culture, where safety is a shared organisational value and staff feel confident raising concerns.

Dutyholders should:

- Assess and strengthen safety culture regularly
- Encourage open reporting of incidents and near-misses
- Demonstrate learning through changes to SMS and controls
- Communicate clearly "what has changed and why"

Recommended resources

Dutyholders should make use of ORR's improvement resources, including:

- RM3 guidance and training
- Heritage SMS guidance
- ORR annual reports and safety data
- Case studies and good practice examples

Participation in ORR-supported industry forums, working groups and learning networks provides further opportunities to share learning and strengthen maturity.

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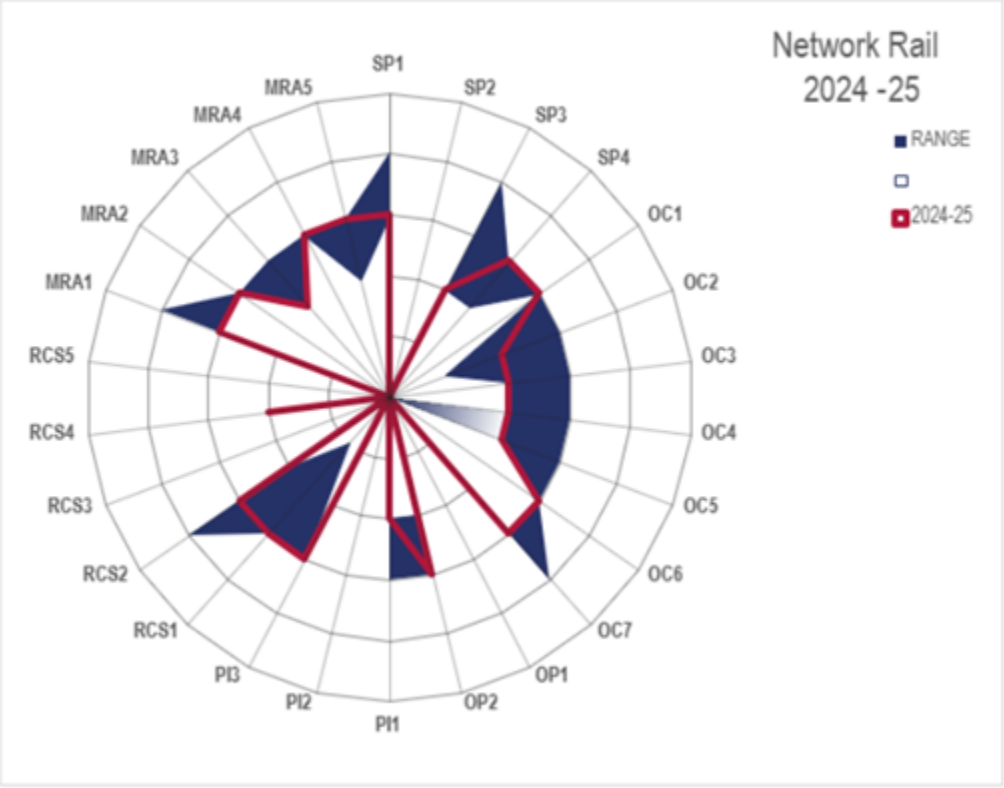
5. Appendix

Industry performance

Network Rail

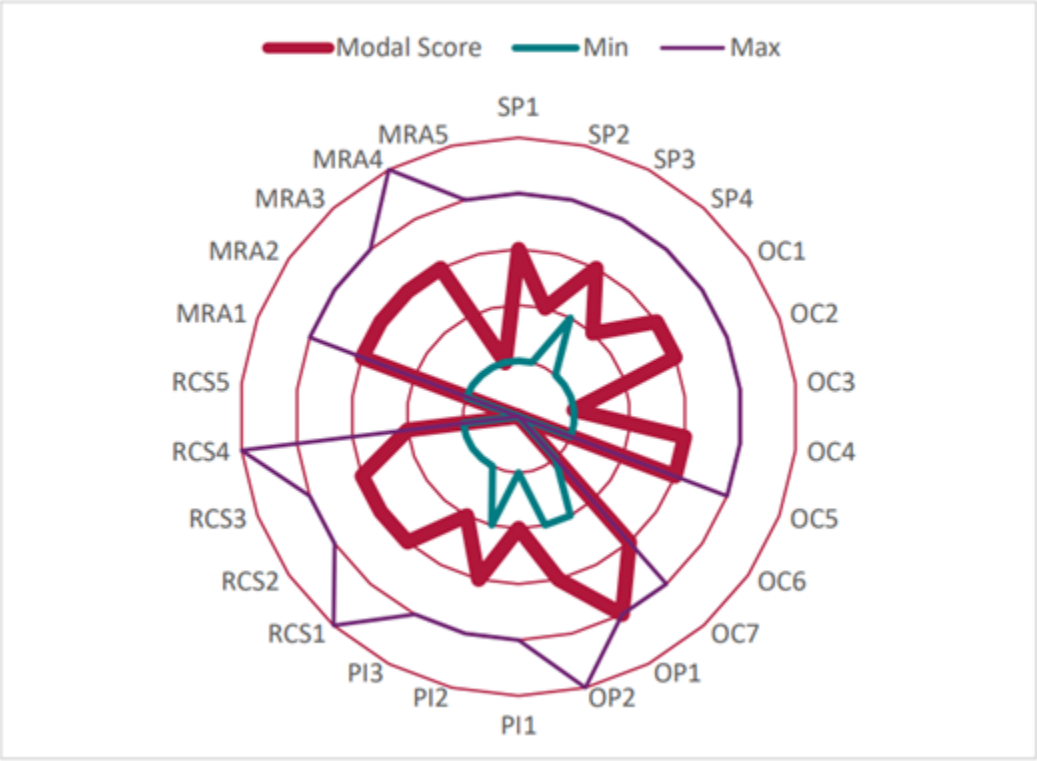
Network Rail operated broadly at the Standardised level across most SMS components, with Scotland consistently outperforming other regions and reaching Predictable maturity in leadership, governance, and proactive monitoring. Improvements were noted in assurance activities and dashboard-based performance tracking, particularly in Scotland and Wales & Western. However, weaknesses persist in contractor control, incident investigation, and competence management, compounded by staff shortages and retention challenges. Fatigue risk management remains underdeveloped, and uneven application of standards continues to affect consistency.



Mainline Operators

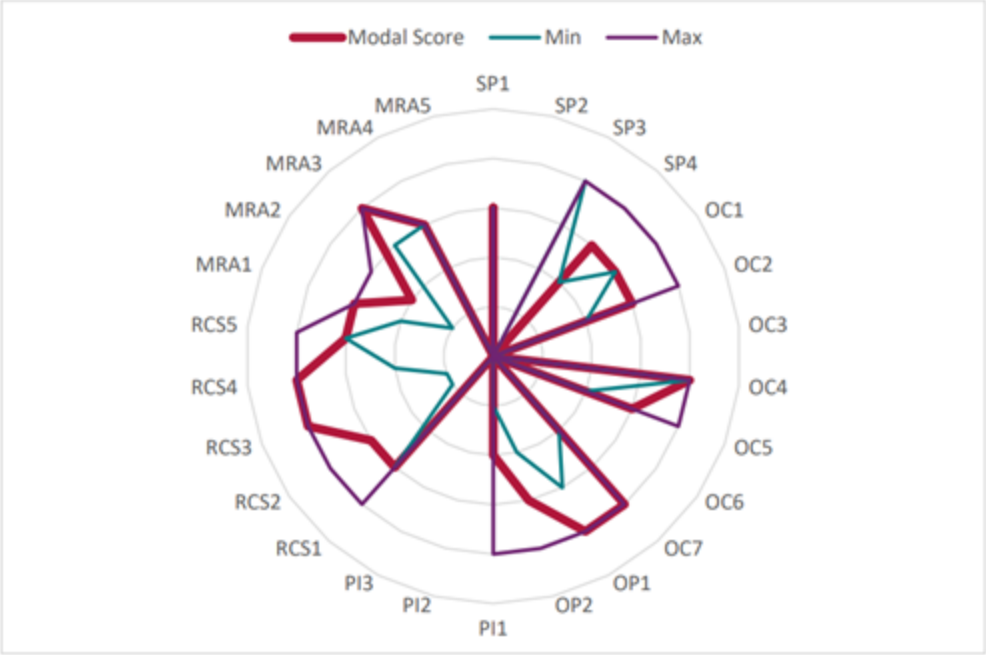
Mainline operators demonstrate Standardised maturity overall, with Predictable performance in

leadership, board governance, and incident investigation. Worker involvement and change management scored well during major fleet introductions. However, variability across duty holders remained significant, particularly in contractor control, safe systems of work for high-risk tasks, and proactive supplier monitoring. Several risk assessments were found outdated, and communication gaps persist, limiting the reach of safety briefs and route risk information.



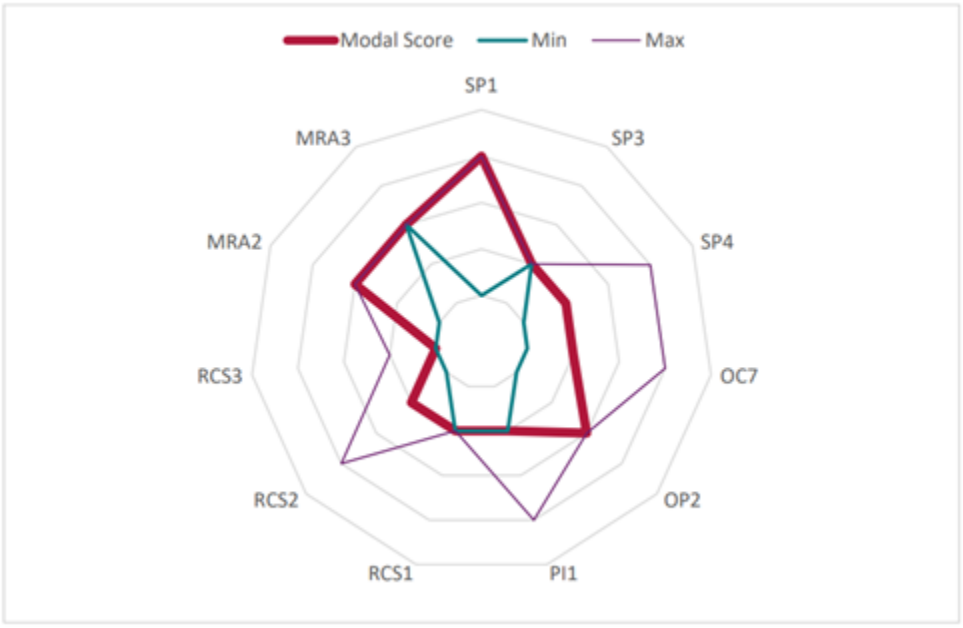
Non-Mainline Operators

Non-mainline operators generally operated at Standardised maturity, with strong performance in communication, worker involvement, and record keeping. Contractor control and change management also scored highly, supported by structured processes. However, risk assessment and audit processes remained inconsistent, asset management is uneven, and competence arrangements for agency staff require improvement. Emergency planning is supported by joint exercises but lacks systematic integration of lessons learned.



Heritage Railways

There are over 200 Heritage and Minor railways in Great Britain, varying significantly in their scale and operations. ORR expects individual railways to develop a SMS proportionate to the level of risk associated with their operations. To support improvement, ORR has published SMS guidance tailored for heritage railways and developed a dedicated RM3 topic set specifically for this sector Our inspections in 2024/25 identified that the sector is typically at a Managed level of SMS maturity. Weaker areas tend to be found around audit and change management.



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