



AI and audit integrity algorithms



I.N.T.A.C.T
ANALYTICS

Welcome



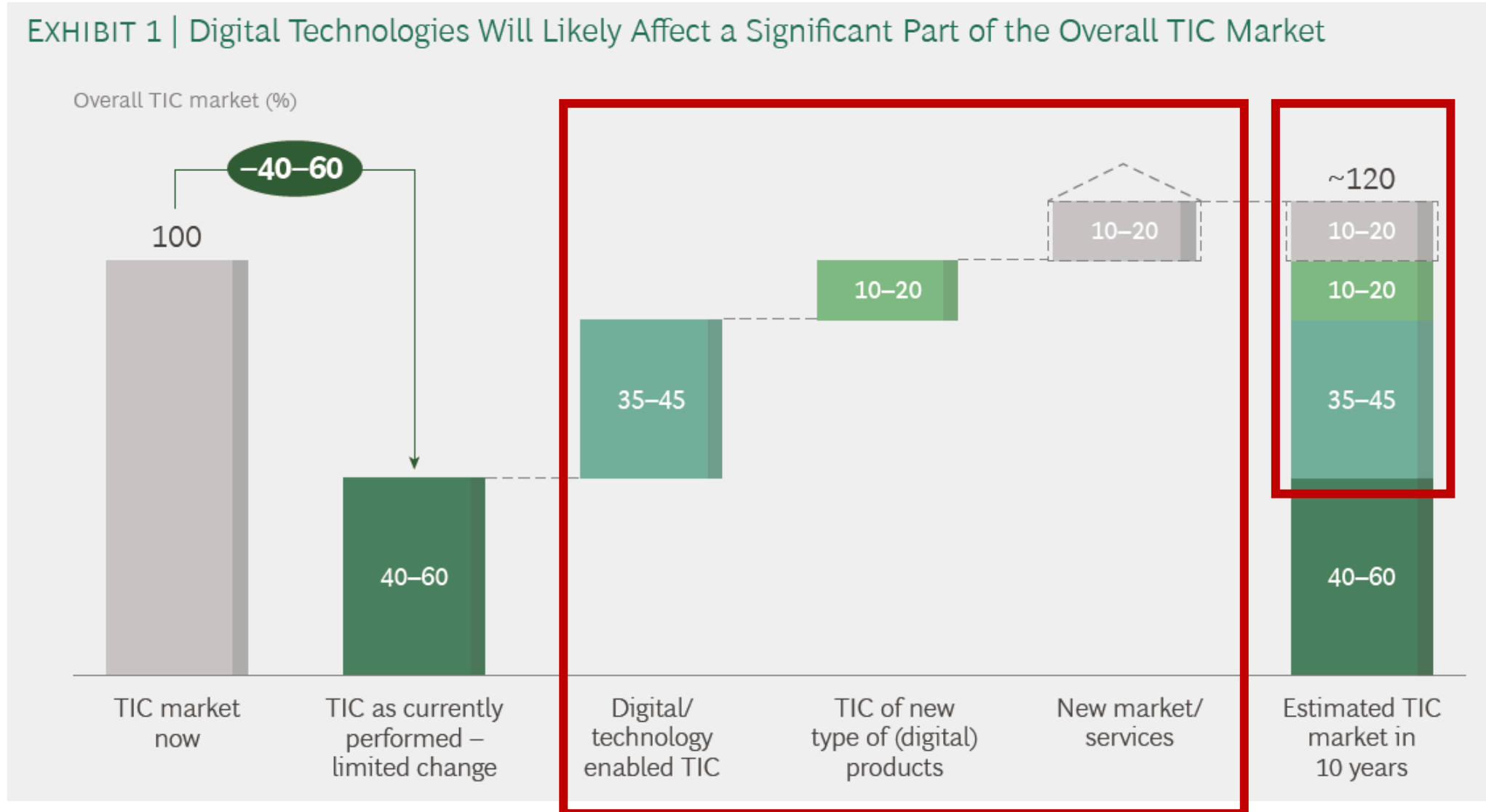
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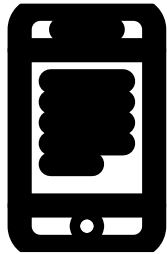
Introduction

EXHIBIT 1 | Digital Technologies Will Likely Affect a Significant Part of the Overall TIC Market



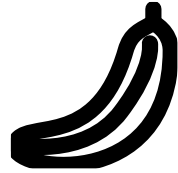
Source: Testing, Inspection, and Certification Go Digital, BCG 2018

The smoothie question



Recipe

Algorithms



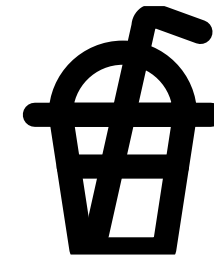
Ingredients

Data



Blender

IT



Smoothie

Question

Overview

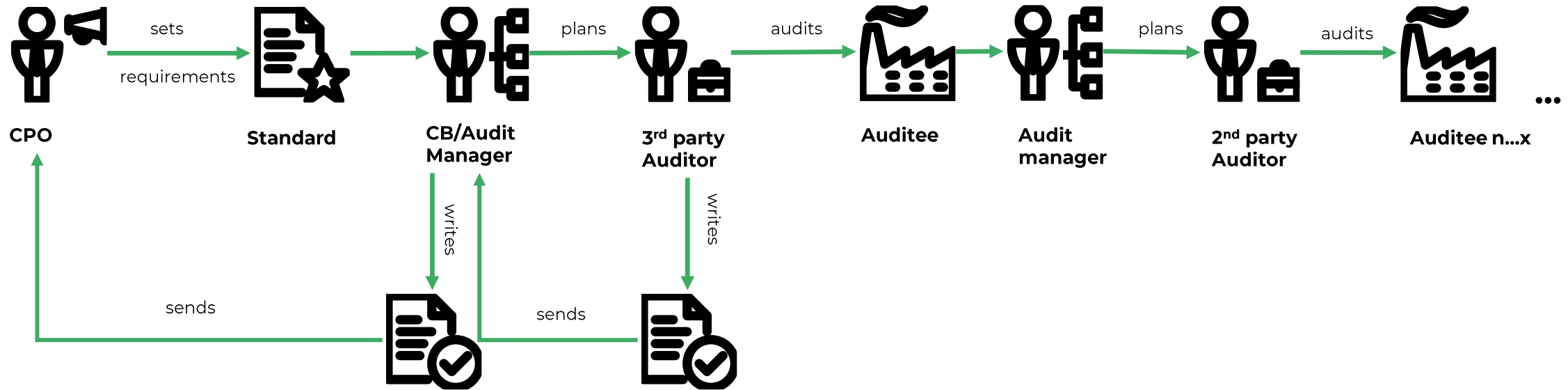
We use to talk about Artificial Intelligence (AI)

I prefer Intelligence Augmentation (IA)

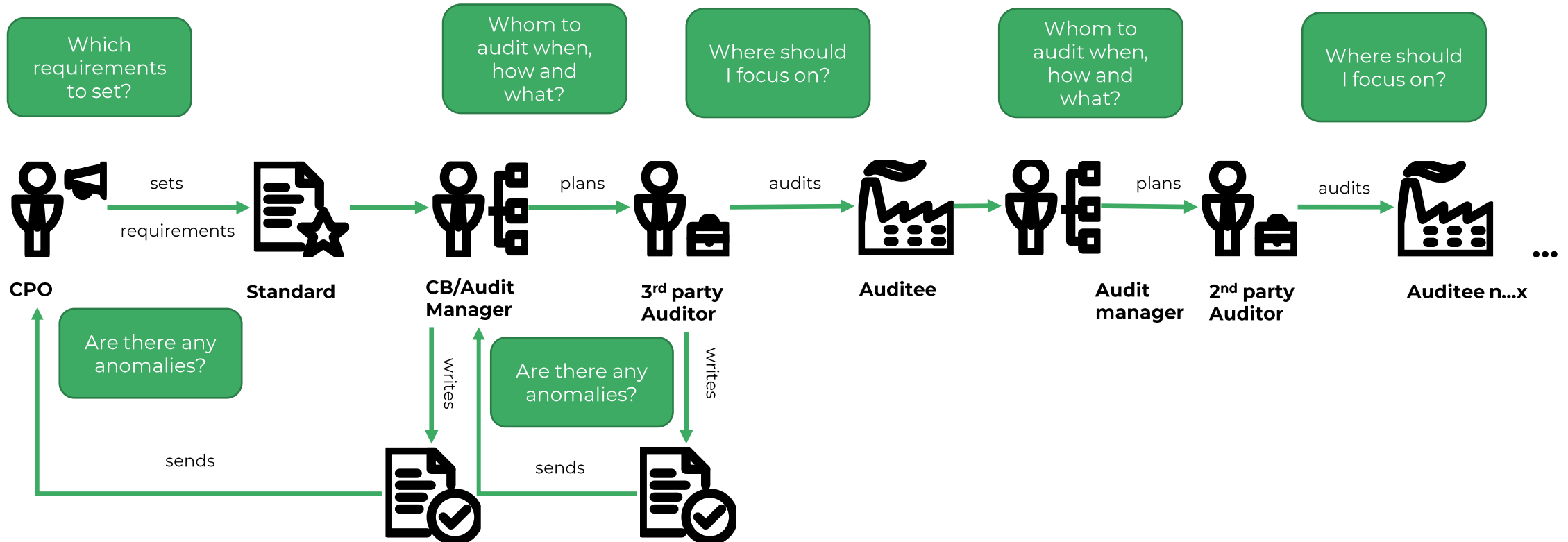
It unbiased mimics and automates cognitive tasks

→ You'll see more, find more, and do more!

The audit chain



The audit chain smoothies


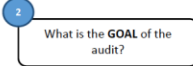

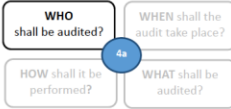


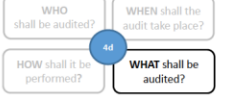


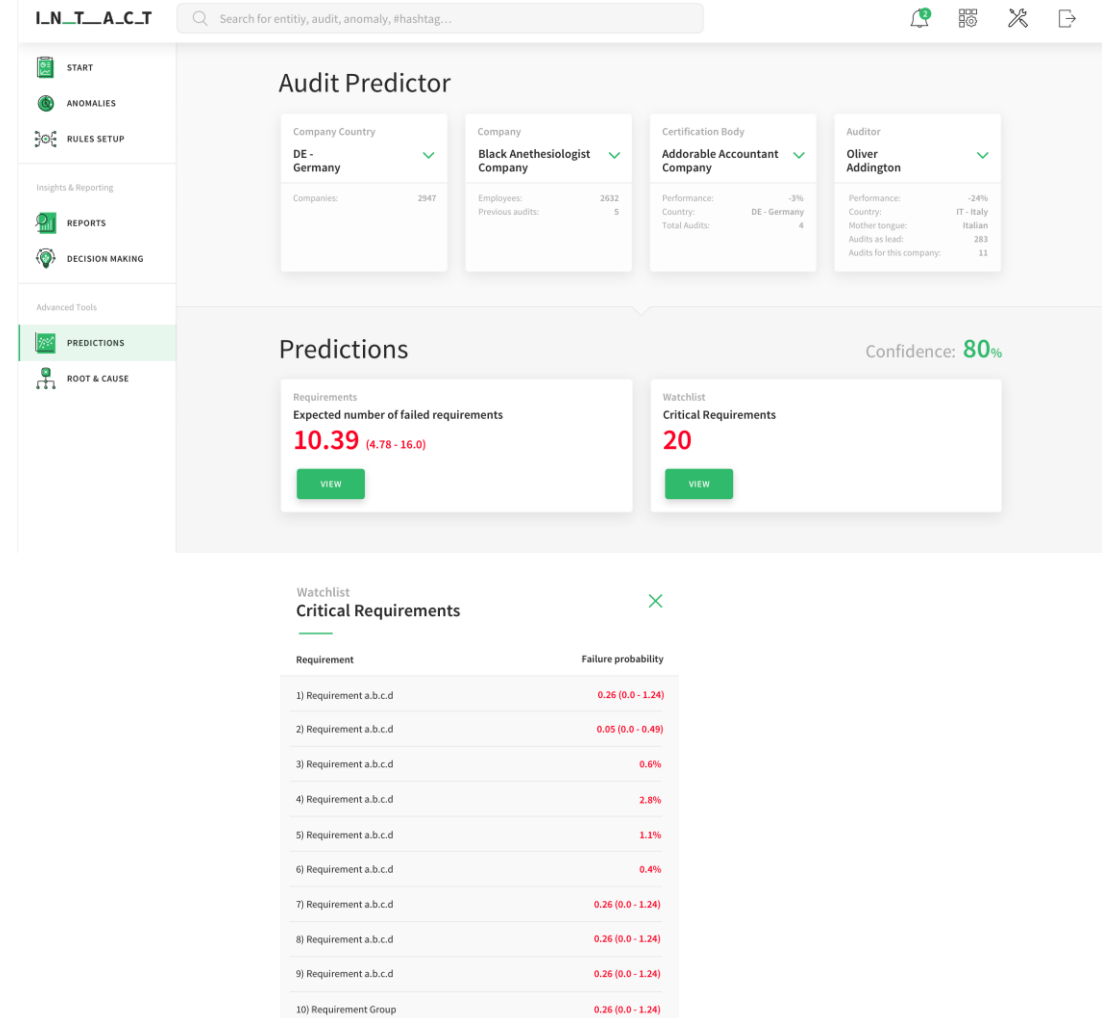
Example: risk-based questions solved with AI

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J.A. Kleboth et al. / Trends in Food Science & Technology 56 (2016) 167–174

Table 1
Framework for complex system risk-based auditing.

Variable	Step in the framework	Examples
Trigger	<p>1 Which TRIGGERs are present?</p> 	<ul style="list-style-type: none"> Periodic and scheduled checks Customer demand or complaints Emerging risks Institutional demands Establish business in new markets Standard and scheme demands Presence of food safety/quality threat Media attention Social instability (wars etc.) ...
Goal	<p>2 What is the GOAL of the audit?</p> 	<ul style="list-style-type: none"> Meeting specified internal or external goals Minimize recalls Design trust towards stakeholders Supplier Check Getting certified against a standard ...
Context	<p>3 In which CONTEXT is the audit?</p> 	<ul style="list-style-type: none"> Commodities used Environment of my business and my supply chain Food quality/safety and integrity culture of the business and supply chain Political situation Competitiveness of the business-environment Social instabilities ...
Food chain participant	<p>4a WHO shall be audited? WHEN shall the audit take place?</p> <p>HOW shall it be performed? WHAT shall be audited?</p> 	<ul style="list-style-type: none"> Individual companies Sectors Regions Food Chains ...
Time	<p>4b WHO shall be audited? WHEN shall the audit take place?</p> <p>HOW shall it be performed? WHAT shall be audited?</p> 	<ul style="list-style-type: none"> Intervals Immediately vs. delayed After/Before a specified event ...
Metho-dology	<p>4c WHO shall be audited? WHEN shall the audit take place?</p> <p>HOW shall it be performed? WHAT shall be audited?</p> 	<ul style="list-style-type: none"> 1st, 2nd or 3rd party audits Announced vs. unannounced audits Witness vs. desktop audits Broad vs. focused audits ...
Content	<p>4d WHO shall be audited? WHEN shall the audit take place?</p> <p>HOW shall it be performed? WHAT shall be audited?</p> 	<ul style="list-style-type: none"> Operational vs. management Processes and documentation requirements Standards and Schemes Own criteria ...



The screenshot shows the I.N.T.A.C.T Audit Predictor interface. It features a search bar at the top and a sidebar with navigation options: START, ANOMALIES, RULES SETUP, REPORTS, DECISION MAKING, PREDICTIONS (highlighted), and ROOT & CAUSE. The main content area displays the 'Audit Predictor' results for a specific company and auditor, including metrics for companies, employees, and audits. Below this, the 'Predictions' section shows a 'Watchlist Critical Requirements' with a confidence of 80%. A detailed view of the watchlist is shown at the bottom, listing 10 requirements with their failure probabilities.

Requirement	Failure probability
1) Requirement a.b.c.d	0.26 (0.0 - 1.24)
2) Requirement a.b.c.d	0.05 (0.0 - 0.49)
3) Requirement a.b.c.d	0.6%
4) Requirement a.b.c.d	2.8%
5) Requirement a.b.c.d	1.1%
6) Requirement a.b.c.d	0.4%
7) Requirement a.b.c.d	0.26 (0.0 - 1.24)
8) Requirement a.b.c.d	0.26 (0.0 - 1.24)
9) Requirement a.b.c.d	0.26 (0.0 - 1.24)
10) Requirement Group	0.26 (0.0 - 1.24)

Thank you.



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