8️⃣ **Relatório Final Consolidado - Visualização do Resultado**

**Ver:** **[Relatório Final Consolidado - Sistema Multi-Agente | Claude | Claude](https://claude.ai/public/artifacts/69c0be88-51d7-40f6-805a-95de1ad65cbd)**

**Codigo:**

<!DOCTYPE html>

<html lang="pt-AO">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Relatório Executivo Consolidado - Sistema Multi-Agente</title>

<style>

\* {

margin: 0;

padding: 0;

box-sizing: border-box;

}

@media print {

body {

background: white !important;

}

.no-print {

display: none !important;

}

}

body {

font-family: 'Segoe UI', system-ui, -apple-system, sans-serif;

background: linear-gradient(135deg, #667eea 0%, #764ba2 100%);

min-height: 100vh;

padding: 20px;

}

.report-container {

max-width: 1200px;

margin: 0 auto;

background: white;

border-radius: 20px;

box-shadow: 0 30px 60px rgba(0, 0, 0, 0.2);

overflow: hidden;

}

.report-header {

background: linear-gradient(135deg, #2d3748, #1a202c);

color: white;

padding: 40px;

position: relative;

overflow: hidden;

}

.report-header::before {

content: '';

position: absolute;

top: -50%;

right: -10%;

width: 50%;

height: 200%;

background: rgba(255, 255, 255, 0.05);

transform: rotate(35deg);

}

.company-info {

display: flex;

justify-content: space-between;

align-items: start;

margin-bottom: 30px;

position: relative;

z-index: 1;

}

.company-logo {

width: 60px;

height: 60px;

background: white;

border-radius: 15px;

display: flex;

align-items: center;

justify-content: center;

font-size: 30px;

margin-bottom: 15px;

}

.company-name {

font-size: 24px;

font-weight: bold;

margin-bottom: 5px;

}

.company-subtitle {

font-size: 14px;

opacity: 0.8;

}

.report-meta {

text-align: right;

}

.report-number {

background: rgba(255, 255, 255, 0.2);

padding: 5px 15px;

border-radius: 20px;

display: inline-block;

font-size: 12px;

margin-bottom: 10px;

}

.report-date {

font-size: 14px;

opacity: 0.8;

}

.report-title {

position: relative;

z-index: 1;

}

h1 {

font-size: 36px;

margin-bottom: 10px;

}

.report-period {

font-size: 18px;

opacity: 0.9;

}

.executive-summary {

background: linear-gradient(135deg, #f0fdf4, #dcfce7);

padding: 30px;

margin: 30px;

border-radius: 15px;

}

.summary-header {

display: flex;

align-items: center;

gap: 10px;

margin-bottom: 20px;

font-size: 20px;

font-weight: 600;

color: #14532d;

}

.summary-grid {

display: grid;

grid-template-columns: repeat(auto-fit, minmax(200px, 1fr));

gap: 20px;

margin-bottom: 20px;

}

.summary-metric {

background: white;

padding: 20px;

border-radius: 12px;

text-align: center;

}

.metric-icon {

width: 40px;

height: 40px;

background: linear-gradient(135deg, #10b981, #059669);

border-radius: 10px;

display: flex;

align-items: center;

justify-content: center;

margin: 0 auto 10px;

color: white;

font-size: 20px;

}

.metric-value {

font-size: 28px;

font-weight: bold;

color: #2d3748;

margin-bottom: 5px;

}

.metric-label {

font-size: 12px;

color: #718096;

text-transform: uppercase;

letter-spacing: 0.5px;

}

.metric-trend {

display: inline-block;

padding: 4px 8px;

border-radius: 12px;

font-size: 11px;

font-weight: 600;

margin-top: 8px;

}

.trend-positive {

background: #d1fae5;

color: #065f46;

}

.trend-negative {

background: #fee2e2;

color: #991b1b;

}

.report-section {

padding: 30px;

border-bottom: 1px solid #e2e8f0;

}

.report-section:last-child {

border-bottom: none;

}

.section-header {

display: flex;

align-items: center;

gap: 12px;

margin-bottom: 25px;

}

.section-icon {

width: 40px;

height: 40px;

border-radius: 10px;

display: flex;

align-items: center;

justify-content: center;

font-size: 20px;

}

.section-icon.ocr {

background: linear-gradient(135deg, #667eea, #5a67d8);

color: white;

}

.section-icon.classification {

background: linear-gradient(135deg, #f687b3, #ed64a6);

color: white;

}

.section-icon.budget {

background: linear-gradient(135deg, #48bb78, #38a169);

color: white;

}

.section-icon.treasury {

background: linear-gradient(135deg, #ed8936, #dd6b20);

color: white;

}

.section-icon.risk {

background: linear-gradient(135deg, #fc8181, #f56565);

color: white;

}

.section-title {

flex: 1;

}

.section-name {

font-size: 20px;

font-weight: 600;

color: #2d3748;

}

.section-description {

font-size: 14px;

color: #718096;

margin-top: 2px;

}

.section-status {

display: flex;

align-items: center;

gap: 8px;

padding: 8px 15px;

border-radius: 20px;

font-size: 13px;

font-weight: 600;

}

.status-complete {

background: #d1fae5;

color: #065f46;

}

.data-table {

width: 100%;

border-collapse: separate;

border-spacing: 0;

margin-bottom: 20px;

}

.data-table th {

background: #f7fafc;

padding: 12px;

text-align: left;

font-size: 12px;

font-weight: 600;

color: #4a5568;

text-transform: uppercase;

letter-spacing: 0.5px;

border-bottom: 2px solid #e2e8f0;

}

.data-table td {

padding: 12px;

font-size: 14px;

color: #2d3748;

border-bottom: 1px solid #e2e8f0;

}

.data-table tr:hover {

background: #f7fafc;

}

.insights-box {

background: linear-gradient(135deg, #fef3c7, #fde68a);

border-radius: 12px;

padding: 20px;

margin-top: 20px;

}

.insights-title {

font-weight: 600;

color: #78350f;

margin-bottom: 12px;

display: flex;

align-items: center;

gap: 8px;

}

.insight-item {

display: flex;

align-items: start;

gap: 10px;

margin-bottom: 8px;

color: #92400e;

font-size: 14px;

}

.chart-container {

background: #f8fafc;

border-radius: 12px;

padding: 20px;

margin-bottom: 20px;

}

.mini-chart {

display: flex;

align-items: flex-end;

justify-content: space-around;

height: 120px;

gap: 10px;

}

.chart-bar {

flex: 1;

background: linear-gradient(180deg, #667eea, #5a67d8);

border-radius: 4px 4px 0 0;

position: relative;

cursor: pointer;

transition: all 0.3s;

}

.chart-bar:hover {

transform: translateY(-5px);

}

.chart-bar-label {

position: absolute;

bottom: -20px;

left: 50%;

transform: translateX(-50%);

font-size: 11px;

color: #718096;

white-space: nowrap;

}

.recommendations {

background: linear-gradient(135deg, #e9d5ff, #f3e8ff);

border-radius: 15px;

padding: 25px;

}

.recommendations-title {

font-size: 18px;

font-weight: 600;

color: #581c87;

margin-bottom: 15px;

display: flex;

align-items: center;

gap: 10px;

}

.recommendation-card {

background: white;

border-radius: 10px;

padding: 15px;

margin-bottom: 12px;

display: flex;

align-items: start;

gap: 12px;

}

.recommendation-priority {

width: 35px;

height: 35px;

border-radius: 8px;

display: flex;

align-items: center;

justify-content: center;

font-weight: bold;

font-size: 14px;

flex-shrink: 0;

}

.priority-high {

background: #fee2e2;

color: #991b1b;

}

.priority-medium {

background: #fed7aa;

color: #92400e;

}

.recommendation-content {

flex: 1;

}

.recommendation-title {

font-weight: 600;

color: #2d3748;

margin-bottom: 4px;

}

.recommendation-description {

font-size: 13px;

color: #718096;

line-height: 1.5;

}

.footer-section {

background: #f7fafc;

padding: 30px;

text-align: center;

}

.signature-grid {

display: grid;

grid-template-columns: repeat(auto-fit, minmax(200px, 1fr));

gap: 30px;

margin-bottom: 30px;

}

.signature-box {

text-align: center;

}

.signature-line {

width: 100%;

height: 1px;

background: #cbd5e0;

margin: 40px 0 10px;

}

.signature-name {

font-weight: 600;

color: #2d3748;

margin-bottom: 2px;

}

.signature-title {

font-size: 13px;

color: #718096;

}

.footer-info {

font-size: 12px;

color: #a0aec0;

margin-top: 20px;

}

.action-bar {

position: sticky;

top: 0;

background: white;

border-bottom: 1px solid #e2e8f0;

padding: 15px 30px;

display: flex;

justify-content: space-between;

align-items: center;

z-index: 100;

}

.action-buttons {

display: flex;

gap: 10px;

}

.btn {

padding: 10px 20px;

border: none;

border-radius: 10px;

font-weight: 600;

cursor: pointer;

transition: all 0.3s;

display: flex;

align-items: center;

gap: 8px;

}

.btn-primary {

background: linear-gradient(135deg, #667eea, #764ba2);

color: white;

}

.btn-primary:hover {

transform: translateY(-2px);

box-shadow: 0 10px 20px rgba(102, 126, 234, 0.3);

}

.btn-secondary {

background: white;

color: #4a5568;

border: 2px solid #e2e8f0;

}

.progress-indicator {

display: flex;

align-items: center;

gap: 20px;

}

.progress-step {

display: flex;

align-items: center;

gap: 8px;

}

.step-icon {

width: 30px;

height: 30px;

border-radius: 50%;

display: flex;

align-items: center;

justify-content: center;

font-size: 12px;

font-weight: 600;

}

.step-complete {

background: #10b981;

color: white;

}

.step-name {

font-size: 13px;

color: #718096;

}

@keyframes fadeIn {

from {

opacity: 0;

transform: translateY(20px);

}

to {

opacity: 1;

transform: translateY(0);

}

}

.fade-in {

animation: fadeIn 0.5s ease-out;

}

</style>

</head>

<body>

<div class="report-container">

*<!-- Action Bar -->*

<div class="action-bar no-print">

<div class="progress-indicator">

<div class="progress-step">

<div class="step-icon step-complete">✓</div>

<span class="step-name">Captura</span>

</div>

<div class="progress-step">

<div class="step-icon step-complete">✓</div>

<span class="step-name">OCR</span>

</div>

<div class="progress-step">

<div class="step-icon step-complete">✓</div>

<span class="step-name">Classificação</span>

</div>

<div class="progress-step">

<div class="step-icon step-complete">✓</div>

<span class="step-name">Análise</span>

</div>

<div class="progress-step">

<div class="step-icon step-complete">✓</div>

<span class="step-name">Relatório</span>

</div>

</div>

<div class="action-buttons">

<button class="btn btn-secondary">

<span>📥</span>

Exportar PDF

</button>

<button class="btn btn-primary" onclick="window.print()">

<span>🖨️</span>

Imprimir

</button>

<button class="btn btn-secondary">

<span>📧</span>

Enviar

</button>

</div>

</div>

*<!-- Report Header -->*

<div class="report-header">

<div class="company-info">

<div>

<div class="company-logo">🌾</div>

<div class="company-name">Empresa Agrícola Angola Lda</div>

<div class="company-subtitle">Sistema Multi-Agente de Gestão Financeira</div>

</div>

<div class="report-meta">

<div class="report-number">REL-2025-10-142</div>

<div class="report-date">15 de Outubro de 2025</div>

</div>

</div>

<div class="report-title">

<h1>Relatório Executivo de Execução</h1>

<div class="report-period">Período: Outubro 2025</div>

</div>

</div>

*<!-- Executive Summary -->*

<div class="executive-summary">

<div class="summary-header">

<span>📊</span>

Sumário Executivo

</div>

<div class="summary-grid">

<div class="summary-metric">

<div class="metric-icon">📄</div>

<div class="metric-value">247</div>

<div class="metric-label">Documentos Processados</div>

<div class="metric-trend trend-positive">↑ 15% vs mês anterior</div>

</div>

<div class="summary-metric">

<div class="metric-icon">✅</div>

<div class="metric-value">98.3%</div>

<div class="metric-label">Taxa de Precisão</div>

<div class="metric-trend trend-positive">↑ 2.1% melhor</div>

</div>

<div class="summary-metric">

<div class="metric-icon">⏱️</div>

<div class="metric-value">1.2s</div>

<div class="metric-label">Tempo Médio/Doc</div>

<div class="metric-trend trend-positive">↓ 0.3s mais rápido</div>

</div>

<div class="summary-metric">

<div class="metric-icon">💰</div>

<div class="metric-value">87.3%</div>

<div class="metric-label">Execução Orçamental</div>

<div class="metric-trend trend-negative">↓ 12.7% do plano</div>

</div>

</div>

<div style="background: white; border-radius: 12px; padding: 20px; margin-top: 20px;">

<p style="color: #2d3748; line-height: 1.6;">

<strong>Conclusão Principal:</strong> O sistema multi-agente processou com sucesso 247 documentos financeiros

com uma taxa de precisão de 98.3%. A execução orçamentária está em 87.3%, com alertas críticos identificados

em liquidez e custos operacionais. Planos de contingência foram automaticamente ativados.

</p>

</div>

</div>

*<!-- Section 1: Document Processing -->*

<div class="report-section">

<div class="section-header">

<div class="section-icon ocr">📸</div>

<div class="section-title">

<div class="section-name">Agente 1: Processamento de Documentos</div>

<div class="section-description">Captura e extração OCR de documentos financeiros</div>

</div>

<div class="section-status status-complete">

<span>✓</span>

Completo

</div>

</div>

<table class="data-table">

<thead>

<tr>

<th>Tipo Documento</th>

<th>Quantidade</th>

<th>Taxa Sucesso</th>

<th>Tempo Médio</th>

</tr>

</thead>

<tbody>

<tr>

<td>Facturas</td>

<td>142</td>

<td>99.2%</td>

<td>1.1s</td>

</tr>

<tr>

<td>Recibos</td>

<td>67</td>

<td>97.8%</td>

<td>0.9s</td>

</tr>

<tr>

<td>Extratos Bancários</td>

<td>28</td>

<td>98.5%</td>

<td>1.5s</td>

</tr>

<tr>

<td>Notas de Caixa</td>

<td>10</td>

<td>96.0%</td>

<td>0.8s</td>

</tr>

</tbody>

</table>

<div class="chart-container">

<div class="mini-chart">

<div class="chart-bar" style="height: 80%;">

<span class="chart-bar-label">Seg</span>

</div>

<div class="chart-bar" style="height: 65%;">

<span class="chart-bar-label">Ter</span>

</div>

<div class="chart-bar" style="height: 90%;">

<span class="chart-bar-label">Qua</span>

</div>

<div class="chart-bar" style="height: 70%;">

<span class="chart-bar-label">Qui</span>

</div>

<div class="chart-bar" style="height: 95%;">

<span class="chart-bar-label">Sex</span>

</div>

<div class="chart-bar" style="height: 45%;">

<span class="chart-bar-label">Sáb</span>

</div>

<div class="chart-bar" style="height: 85%;">

<span class="chart-bar-label">Dom</span>

</div>

</div>

</div>

</div>

*<!-- Section 2: Classification -->*

<div class="report-section">

<div class="section-header">

<div class="section-icon classification">🏷️</div>

<div class="section-title">

<div class="section-name">Agente 2: Classificação PGC-AO</div>

<div class="section-description">Mapeamento automático para contas contábeis</div>

</div>

<div class="section-status status-complete">

<span>✓</span>

Completo

</div>

</div>

<table class="data-table">

<thead>

<tr>

<th>Conta PGC</th>

<th>Descrição</th>

<th>Documentos</th>

<th>Valor Total</th>

<th>Confiança Média</th>

</tr>

</thead>

<tbody>

<tr>

<td><strong>714</strong></td>

<td>Venda Produtos Agrícolas</td>

<td>52</td>

<td>Kz 4.200.000</td>

<td>96.5%</td>

</tr>

<tr>

<td><strong>715</strong></td>

<td>Venda Produtos Pecuários</td>

<td>18</td>

<td>Kz 1.190.000</td>

<td>94.2%</td>

</tr>

<tr>

<td><strong>611</strong></td>

<td>Matérias-Primas Agrícolas</td>

<td>45</td>

<td>Kz 1.900.000</td>

<td>97.1%</td>

</tr>

<tr>

<td><strong>632</strong></td>

<td>Salários e Encargos</td>

<td>12</td>

<td>Kz 700.000</td>

<td>99.0%</td>

</tr>

</tbody>

</table>

</div>

*<!-- Section 3: Budget Execution -->*

<div class="report-section">

<div class="section-header">

<div class="section-icon budget">📊</div>

<div class="section-title">

<div class="section-name">Agente 3: Execução Orçamentária</div>

<div class="section-description">Análise comparativa orçado vs realizado</div>

</div>

<div class="section-status status-complete">

<span>✓</span>

Completo

</div>

</div>

<table class="data-table">

<thead>

<tr>

<th>Categoria</th>

<th>Orçado</th>

<th>Executado</th>

<th>Variação</th>

<th>Status</th>

</tr>

</thead>

<tbody>

<tr>

<td>Receitas Totais</td>

<td>Kz 5.400.000</td>

<td>Kz 4.700.000</td>

<td style="color: #dc2626;">-13.0%</td>

<td>⚠️ Abaixo</td>

</tr>

<tr>

<td>Custos Totais</td>

<td>Kz 2.950.000</td>

<td>Kz 3.200.000</td>

<td style="color: #dc2626;">+8.5%</td>

<td>🔴 Excedido</td>

</tr>

<tr>

<td>Resultado Líquido</td>

<td>Kz 2.450.000</td>

<td>Kz 1.500.000</td>

<td style="color: #dc2626;">-38.8%</td>

<td>🔴 Crítico</td>

</tr>

</tbody>

</table>

<div class="insights-box">

<div class="insights-title">

<span>💡</span>

Principais Desvios Identificados

</div>

<div class="insight-item">

<span>•</span>

<span>Receitas agrícolas 13.3% abaixo do orçado devido a atrasos na colheita</span>

</div>

<div class="insight-item">

<span>•</span>

<span>Custos de energia excederam 20% devido ao aumento de produção</span>

</div>

<div class="insight-item">

<span>•</span>

<span>Margem operacional comprometida, necessário ajuste urgente</span>

</div>

</div>

</div>

*<!-- Section 4: Treasury -->*

<div class="report-section">

<div class="section-header">

<div class="section-icon treasury">💰</div>

<div class="section-title">

<div class="section-name">Agente 4: Tesouraria</div>

<div class="section-description">Gestão de fluxo de caixa e liquidez</div>

</div>

<div class="section-status status-complete">

<span>✓</span>

Completo

</div>

</div>

<table class="data-table">

<thead>

<tr>

<th>Indicador</th>

<th>Valor Atual</th>

<th>Meta</th>

<th>Status</th>

</tr>

</thead>

<tbody>

<tr>

<td>Saldo de Caixa</td>

<td>Kz 2.500.000</td>

<td>Kz 1.000.000</td>

<td>✅ Adequado</td>

</tr>

<tr>

<td>Índice de Liquidez</td>

<td>1.2</td>

<td>1.5</td>

<td>⚠️ Atenção</td>

</tr>

<tr>

<td>Dias de Cobertura</td>

<td>15 dias</td>

<td>30 dias</td>

<td>🔴 Crítico</td>

</tr>

<tr>

<td>Recebíveis (7 dias)</td>

<td>Kz 1.200.000</td>

<td>-</td>

<td>📈 Positivo</td>

</tr>

</tbody>

</table>

</div>

*<!-- Section 5: Risk Analysis -->*

<div class="report-section">

<div class="section-header">

<div class="section-icon risk">⚠️</div>

<div class="section-title">

<div class="section-name">Agente 5: Análise de Riscos</div>

<div class="section-description">Identificação de riscos e planos de contingência</div>

</div>

<div class="section-status status-complete">

<span>✓</span>

Completo

</div>

</div>

<table class="data-table">

<thead>

<tr>

<th>Risco</th>

<th>Categoria</th>

<th>Probabilidade</th>

<th>Impacto</th>

<th>Score</th>

</tr>

</thead>

<tbody>

<tr style="background: #fee2e2;">

<td><strong>Crise de Liquidez</strong></td>

<td>Financeiro</td>

<td>90%</td>

<td>Muito Alto</td>

<td>22.5</td>

</tr>

<tr style="background: #fed7aa;">

<td><strong>Receitas Abaixo</strong></td>

<td>Operacional</td>

<td>70%</td>

<td>Alto</td>

<td>14.0</td>

</tr>

<tr style="background: #fed7aa;">

<td><strong>Estouro de Custos</strong></td>

<td>Operacional</td>

<td>60%</td>

<td>Alto</td>

<td>12.0</td>

</tr>

</tbody>

</table>

</div>

*<!-- Recommendations -->*

<div class="report-section">

<div class="recommendations">

<div class="recommendations-title">

<span>🎯</span>

Recomendações e Ações Prioritárias

</div>

<div class="recommendation-card">

<div class="recommendation-priority priority-high">!</div>

<div class="recommendation-content">

<div class="recommendation-title">Ativar Linha de Crédito Emergencial</div>

<div class="recommendation-description">

Ativar imediatamente a linha de crédito de Kz 500.000 para garantir liquidez

nos próximos 15 dias. Prazo: 24 horas.

</div>

</div>

</div>

<div class="recommendation-card">

<div class="recommendation-priority priority-high">1</div>

<div class="recommendation-content">

<div class="recommendation-title">Acelerar Cobrança de Recebíveis</div>

<div class="recommendation-description">

Intensificar cobrança dos Kz 1.200.000 em recebíveis, oferecendo 3% de desconto

para pagamento imediato. Prazo: 48 horas.

</div>

</div>

</div>

<div class="recommendation-card">

<div class="recommendation-priority priority-medium">2</div>

<div class="recommendation-content">

<div class="recommendation-title">Renegociar Contratos de Fornecimento</div>

<div class="recommendation-description">

Iniciar renegociação com fornecedores de insumos para reduzir custos em 10%.

Prazo: 1 semana.

</div>

</div>

</div>

<div class="recommendation-card">

<div class="recommendation-priority priority-medium">3</div>

<div class="recommendation-content">

<div class="recommendation-title">Implementar Medidas de Eficiência Energética</div>

<div class="recommendation-description">

Reduzir consumo de energia em 15% através de otimização de horários de produção.

Prazo: 2 semanas.

</div>

</div>

</div>

</div>

</div>

*<!-- Footer -->*

<div class="footer-section">

<div class="signature-grid">

<div class="signature-box">

<div class="signature-line"></div>

<div class="signature-name">João Silva</div>

<div class="signature-title">Diretor Financeiro</div>

</div>

<div class="signature-box">

<div class="signature-line"></div>

<div class="signature-name">Maria Santos</div>

<div class="signature-title">Controller</div>

</div>

<div class="signature-box">

<div class="signature-line"></div>

<div class="signature-name">Pedro Costa</div>

<div class="signature-title">Diretor Geral</div>

</div>

</div>

<div class="footer-info">

<p><strong>Relatório gerado automaticamente pelo Sistema Multi-Agente</strong></p>

<p>Processamento: 247 documentos | Tempo total: 4min 52s | Precisão: 98.3%</p>

<p>© 2025 Empresa Agrícola Angola Lda - Sistema de Gestão Financeira Inteligente</p>

</div>

</div>

</div>

<script>

*// Animar elementos ao carregar*

window.addEventListener('load', () => {

const elements = document.querySelectorAll('.report-section, .summary-metric');

elements.forEach((element, index) => {

element.style.opacity = '0';

element.style.transform = 'translateY(20px)';

setTimeout(() => {

element.style.transition = 'all 0.5s ease-out';

element.style.opacity = '1';

element.style.transform = 'translateY(0)';

}, index \* 100);

});

*// Animar barras do gráfico*

const bars = document.querySelectorAll('.chart-bar');

bars.forEach((bar, index) => {

const height = bar.style.height;

bar.style.height = '0';

setTimeout(() => {

bar.style.transition = 'height 0.8s ease-out';

bar.style.height = height;

}, 1000 + index \* 100);

});

});

</script>

</body>

</html>