Investment Office Roadmap and Target Operating Model Update

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Wylie Tollette, Chief Operating Investment Officer
Investment Committee

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INVO 2020 Vision

2020 Focus:

✓ Reduce cost, complexity, and risk
✓ Fewer, but more strategic partnerships with external managers.

Mission

Manage the CalPERS investment portfolio in a cost-effective, transparent and risk-aware manner in order to generate returns to pay benefits.

Vision

• The Investment Beliefs and CalPERS Core Values are the guiding principles underlying our investment decisions.
• We operate with a focus on repeatable, predictable, and scalable portfolios and practices.
• We seek alignment of interests with our primary stakeholders, our business partners, and ourselves.
• We use clearly articulated performance, risk, and cost metrics to evaluate our value-add to the funds.
• Our investment and business activities are supported by a solid platform of effective risk management and controls.
INVO 2020 Vision | Enterprise Alignment

CalPERS Strategic Plan Objectives

- **REDUCE COST and COMPLEXITY**
  - Focus on simplifying our portfolio and operations

- **FUND SUSTAINABILITY**
  - Strengthen the long-term sustainability of the pension fund

- **RISK MANAGEMENT**
  - Cultivate a risk-intelligent organization

**2017-2022 CalPERS Strategic Plan**

- **Business Effectiveness**
- **Investment Platform and Controls**
- **Enhanced Capital Allocation Framework**
- **Investment Risk Management and Performance Attribution**
- **Investment Beliefs and ESG Risk Integration**
### INVO 2020 Vision | Current State Assessment

#### 2020 Vision → Mid-Cycle Review

<table>
<thead>
<tr>
<th>Reduced Complexity</th>
<th>Work in Progress</th>
<th>New Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elimination of the Absolute Return Strategies (ARS) program</td>
<td>Implementation of Systems: PEARS; Artemis <em>Potential to simplify</em></td>
<td>Overlay</td>
</tr>
<tr>
<td>Reduced total # of Managers from 315 → 147</td>
<td>Benchmark Changes in Private Assets</td>
<td>Tail-Risk Hedge</td>
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<tr>
<td>Elimination of Unused Composites and Incentive Compensation Benchmarks</td>
<td>Execution Services and Strategy Integration</td>
<td>Volatility Targeting</td>
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<td></td>
<td>ESG Strategic Plan Development</td>
<td>Opportunistic</td>
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<td></td>
<td>Establishment of Investment Manager Engagement Program (IMEP)</td>
<td>Segments</td>
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<td></td>
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<td>Currency Position Evaluation</td>
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<td>Short-Term Investment Fund (STIF)</td>
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<td>Modifications to the Multi-Asset Class Program</td>
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</table>
INVO 2020 Vision | Mid-Cycle Refinements

Refined Strategic Objectives 2015-16

- Better aligned with goals of the broader organization
- Created new Mission and Vision statements
- Applied more active Liquidity management

2016-17

- Formalized Trust Level Investment Decision Making
- Applied a disciplined Risk and Attribution Review
- Evaluated Benchmarks, key unintended risks, asset class roles
- Won CalPERS Softball Championship

2017-18

Enhanced Governance and Organizational Structure

- Refine Trust-level Decision Making
- Legacy Portfolio Management
- Continue Organizational Realignments (NEW)
- Implement Opportunistic Strategies (NEW)
- Review private markets business models (NEW)

2018-19

Enhanced Trust-level Decision Making

- More flexible portfolio structure
- Implement new private markets business models, if appropriate
- Legacy Portfolio Management
- Refine Inflation and currency impacts (NEW)

Reduced risk and improved sustainability

- Asset Allocation aligned with liabilities (Risk Factor work) (MOVED FROM 2018)
- Active Leverage Management
- Fewer, but more strategic, partners
- Complete Organizational Realignment (NEW)

2019-20

Scalable, Repeatable, and Reliable Processes

- Complete

Factor-based Portfolio and Investment Process

- = Complete
INVO 2020 Vision | Organizational Realignment - Phase II

Created Global Governments and Economics group

**Objective:** Increase focus on and elevate key macro-economic drivers of risk and return for improved total fund decision making

Centralized Private Asset Analytics program

* To include Cash Flow/ Waterfall Analysis

**Objective:** Improve transparency and independence of cost, performance, risk and attribution information for improved total fund decision making

Re-aligned Sustainable Investments program

* To include elements of Diversity and Inclusion and Labor Engagement

**Objective:** Improve integration of evidenced-based ESG considerations into the investment decision making process
2017-18 Roadmap | Overview

**2017-18 Roadmap**

- 30 Initiatives
- 20 Program Projects

**Examples of initiatives focused on reducing risk, complexity, costs:**

- TOM Refresh
- Investment Data Strategy
- Broker Selection and Evaluation Review
- Private Markets Business Model Design
- Risk Function Business Design
- Diversity and Inclusion (Board Diversity)
- Sustainable Investment Research
# 2017-18 Roadmap | Target Operating Model (TOM)

## TOM Refresh

<table>
<thead>
<tr>
<th>Goals</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td>Reduced Complexity</td>
<td>✓ Simplified structure and framework</td>
</tr>
<tr>
<td></td>
<td>✓ Refined and consolidated functions</td>
</tr>
<tr>
<td></td>
<td>– From 6 functions to 5</td>
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<tr>
<td></td>
<td>– From 46 sub-functions to 24</td>
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<tr>
<td>Integrated Operating Model</td>
<td>✓ Aligned operating model with the industry reference model, as applicable</td>
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<td>✓ Better integrated private assets investment activities</td>
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<td>✓ Addressed engagement activities unique to CalPERS</td>
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<tr>
<td>Strengthened Alignment</td>
<td>✓ Incorporated 2020 Vision and Enterprise goals</td>
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</table>
### 2017-18 Roadmap | Refined TOM Dashboard

#### 5 Functions
- Trust Level Management
- Investment Beliefs, Policy, & Governance
- Strategic & Dynamic Asset allocations
- Liquidity & Leverage
- Risk Management
- Fund Structure & Business Model
- Compliance

#### 24 Sub Functions

<table>
<thead>
<tr>
<th>Industry Aligned</th>
<th>Sub Functions</th>
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<tbody>
<tr>
<td>Portfolio Construction, Management &amp; Trading</td>
<td>Portfolio Construction - Public Markets</td>
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<tr>
<td></td>
<td>Securities Trading - Public Markets</td>
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<tr>
<td></td>
<td>Private Asset Strategy &amp; Transactions</td>
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<tr>
<td></td>
<td>Manager/Partner Selection &amp; Oversight</td>
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<tr>
<td>Investment Operations &amp; Data</td>
<td>Trade Operations</td>
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<td></td>
<td>Private Market Analysis &amp; Operations</td>
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<td>Valuation / Pricing</td>
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<td>Investment Accounting &amp; Custody</td>
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<td>Performance, Attribution &amp; Risk Reporting</td>
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<td></td>
<td>Data Management</td>
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<td>Investment Technology &amp; Support Services</td>
<td>Technology Management</td>
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<td>Vendor Utilization &amp; Management</td>
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<td>Business Continuity / Disaster Recovery</td>
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<td>Resource Management</td>
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<td>Financial Management</td>
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<tr>
<td>CalPERS</td>
<td>Engagement</td>
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<td>Manager &amp; Industry Peer Engagement</td>
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<td></td>
<td>ESG Advocacy &amp; Integration</td>
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<td>Stakeholder Engagement</td>
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74% of the 2017-18 Roadmap initiatives and program projects are targeted toward Medium to High Risk Functions.
2017-18 Roadmap | Next Steps

- Continue TOM risk-level assessments
- Complete 2017-18 Roadmap initiatives and program projects
- Monitor and report progress through the quarterly enterprise reporting process
Appendix
INVO 2020 Vision | Organizational Realignment - Phase II

- 1 New Asset Class
- New or Refined Operational Programs