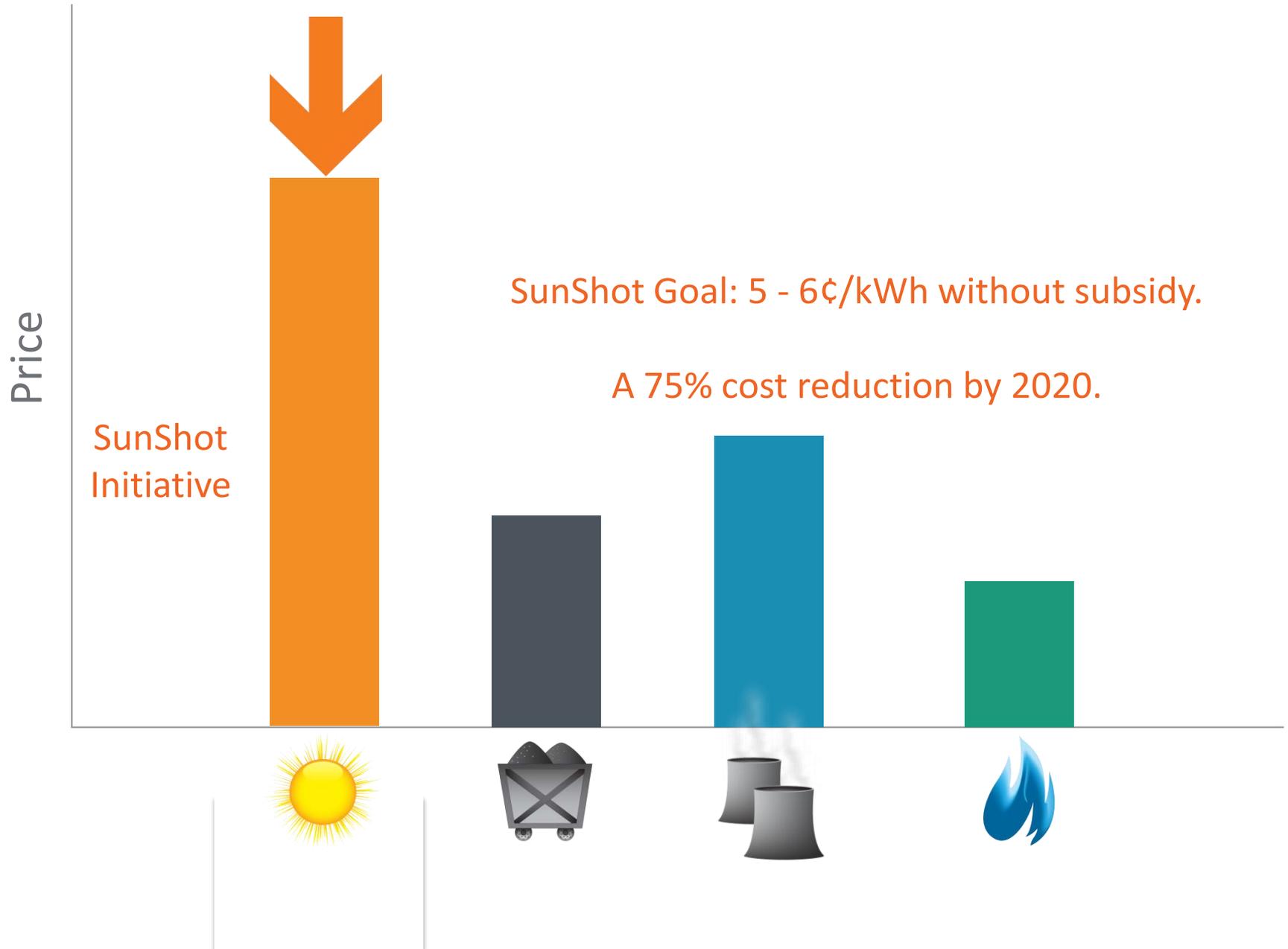


Why SunShot



SunShot 2030 Goals

Commercial PV:

\$0.04/kWh

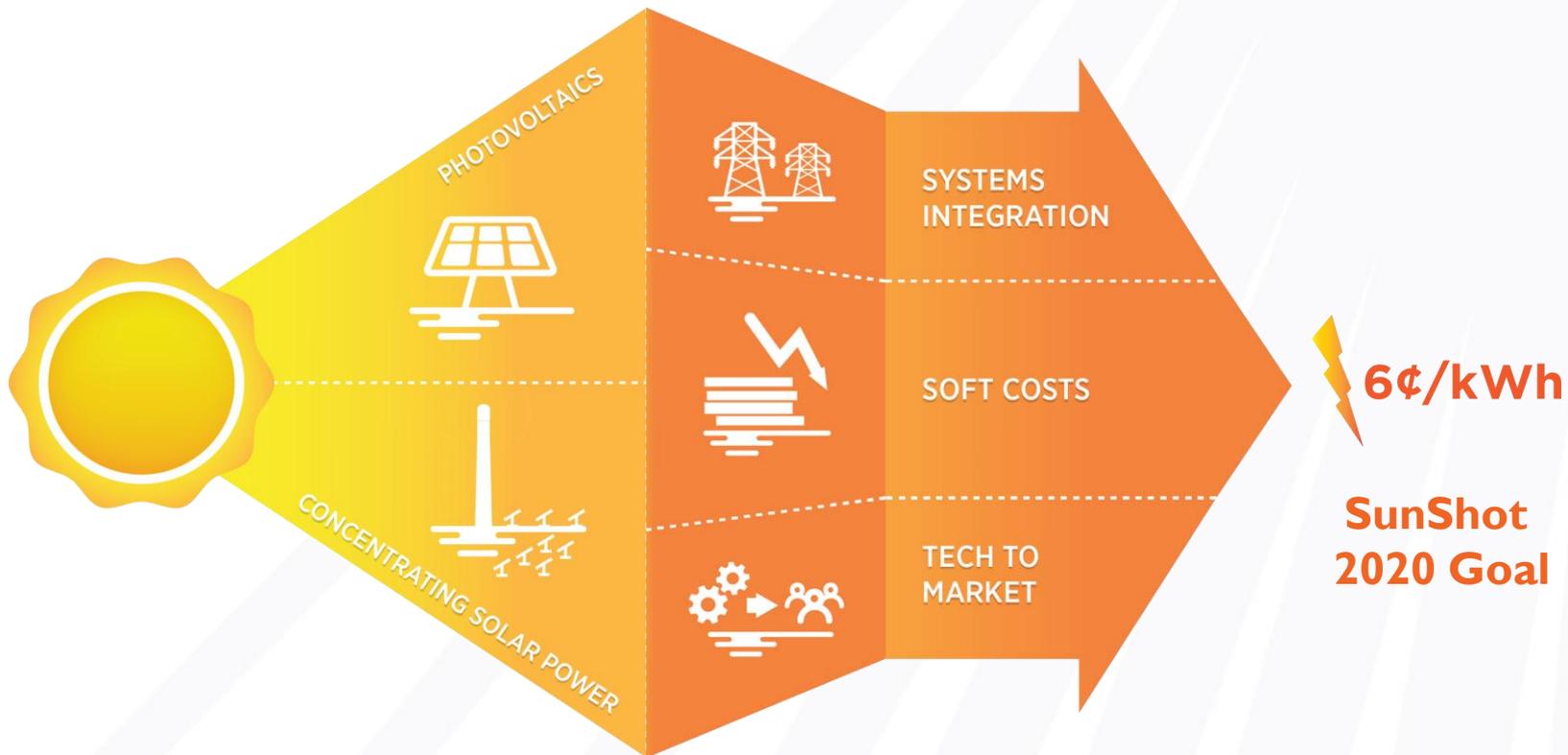
Utility-scale PV:

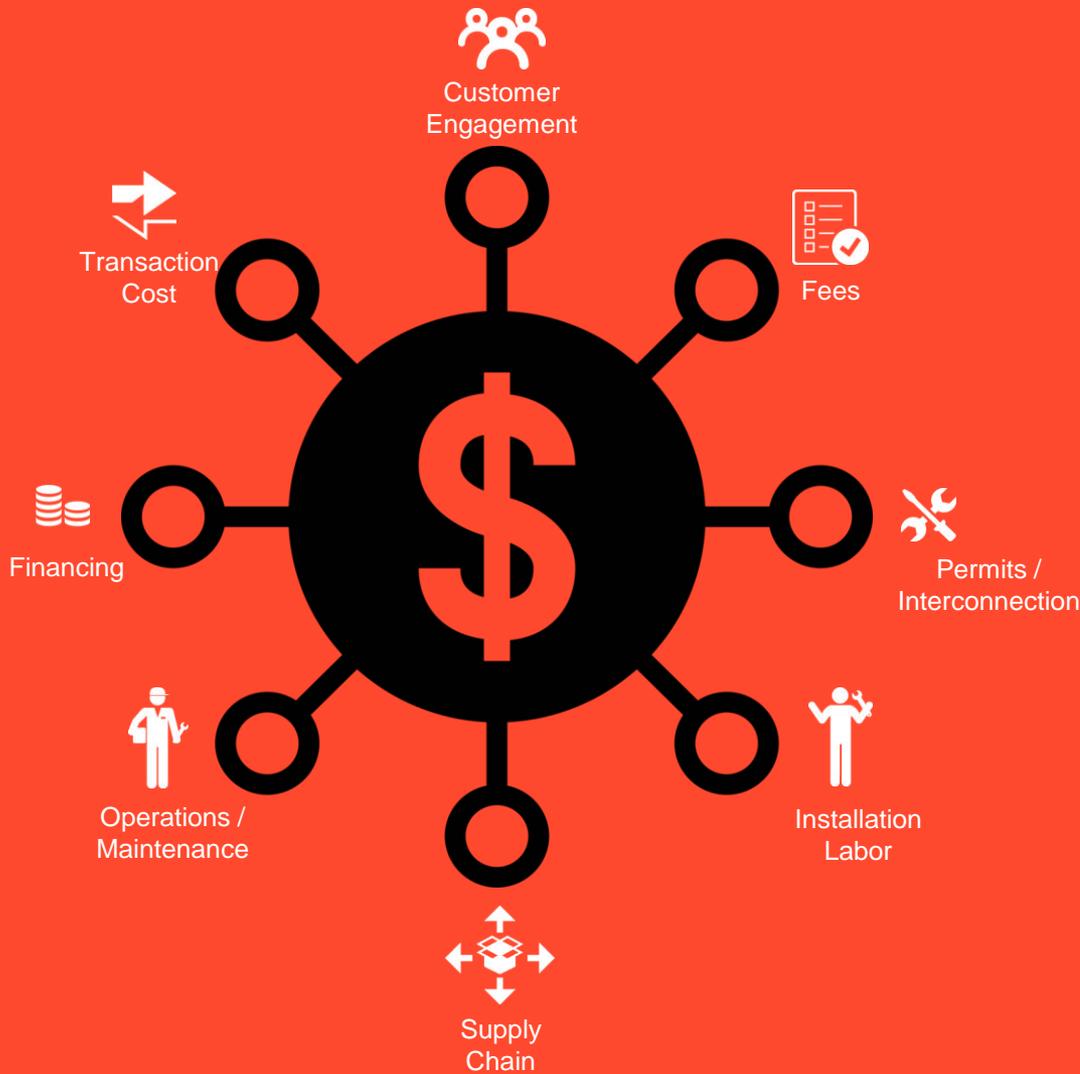
\$0.03/kWh

Residential PV:

\$0.05/kWh

SunShot Program Structure





The cost of market inefficiency caused by data scarcity is typically passed along to the consumer or results in missed opportunity

Soft Costs and Deployment Barriers

- Soft costs and Deployment barriers are the result of a **lack of information** needed to do a job or make a decision
- They can be called “transaction costs”
 - Information/data search, gathering and generation costs
 - Opportunity costs, inefficiency or inaction when decisions appear risky
 - Compliance and enforcement costs
- These information gaps **slow market growth** and can **prevent market access**

SunShot Soft Costs Strategic Areas

BUSINESS INNOVATION

Developing solar finance and business solutions to expand access to capital and accelerate market growth



NETWORKING AND TECHNICAL ASSISTANCE

Empowering state and local decision-makers through timely and actionable resources, peer networks, and technical assistance



DATA ANALYSIS

Harnessing big data analysis and technical solutions to support the many stakeholders involved in solar deployment



TRAINING

Training an innovative solar workforce to enable the solar industry to meet growing demand



DATA: The Orange Button Initiative



The Orange Button Initiative simplifies and standardizes solar data so you can use it.

Standards for More Efficiency in Solar Finance

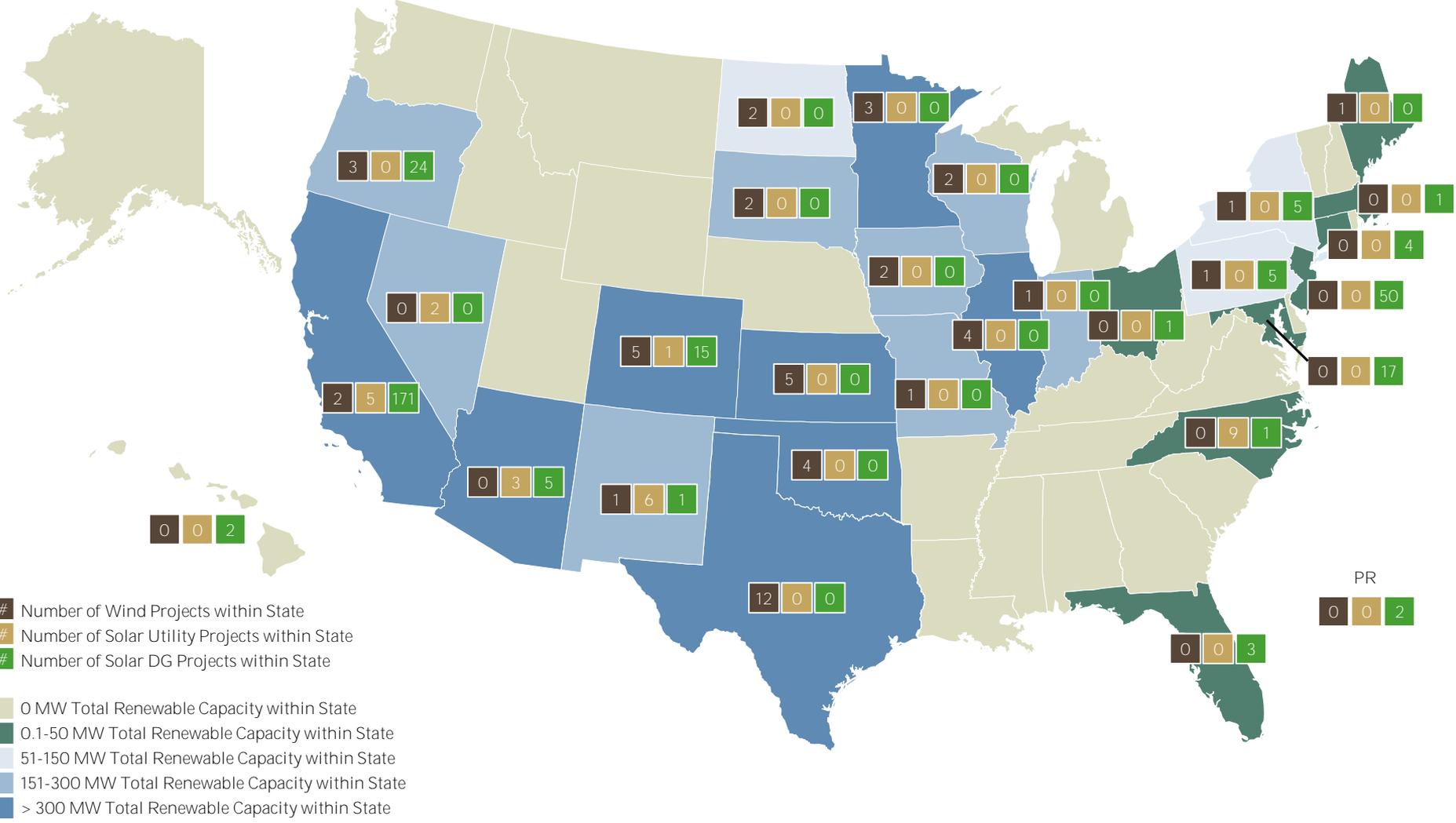
Jon Previtali, VP Renewable Energy & Environmental Finance
June 2017

Together we'll go far



Wells Fargo Renewable Energy & Environmental Finance (REEF)

8+GW portfolio comprised of 50+ Wind projects and 300+ Solar projects
 ~\$4.8bn of tax equity invested into 385 wind and solar projects across 29 states

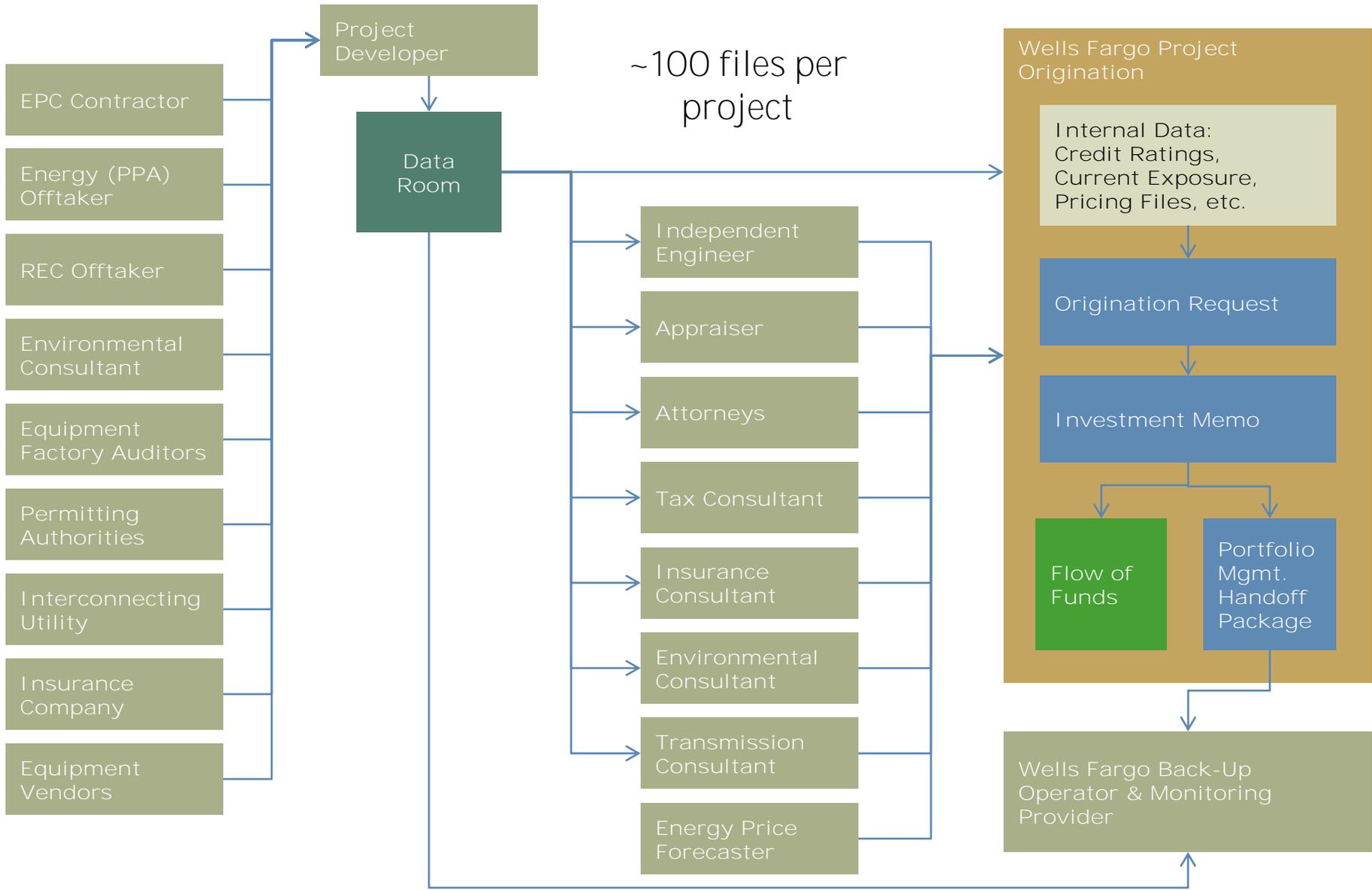


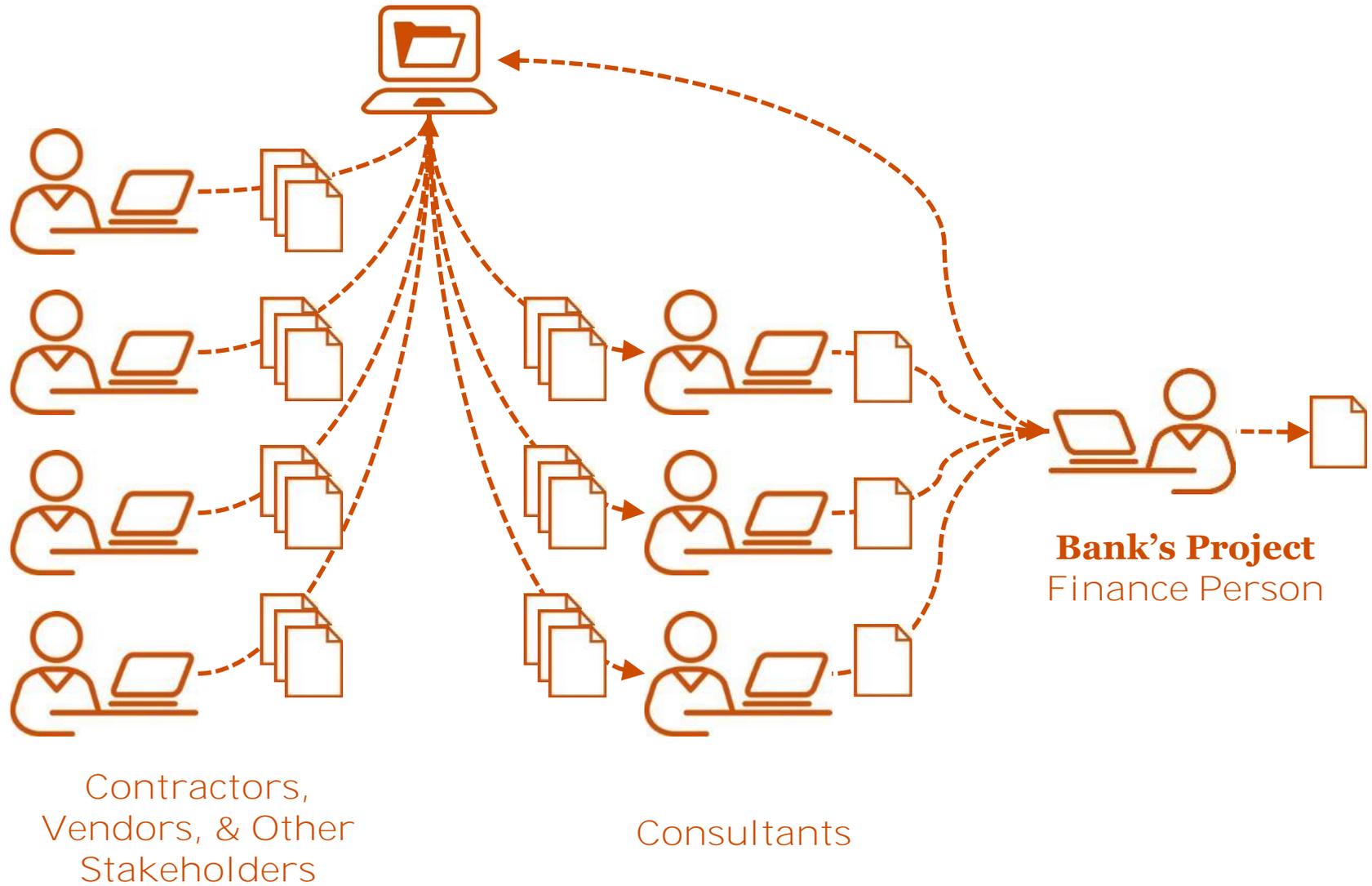


A good portion is data retrieval, transfer, re-entry & error correction.

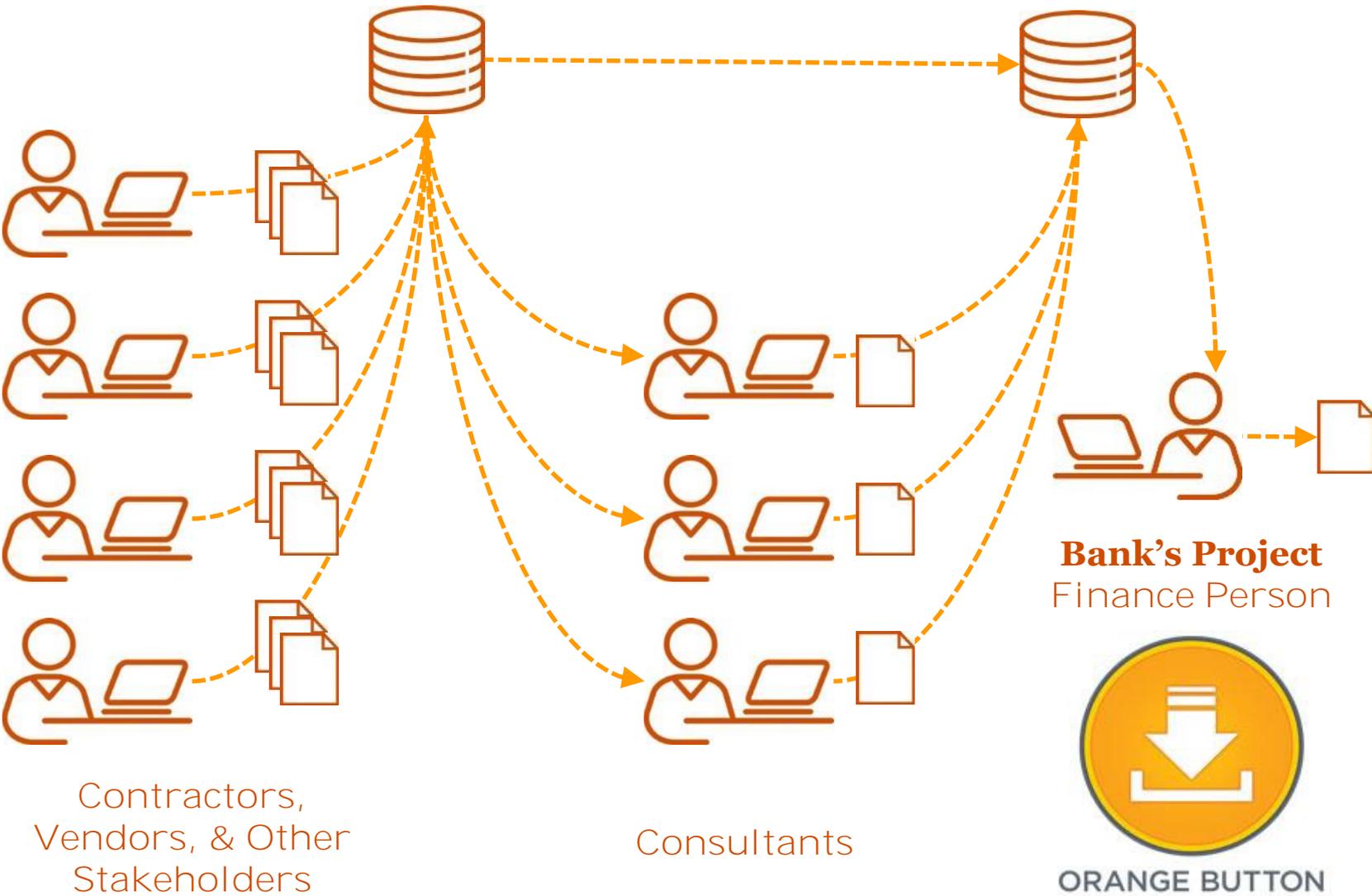
Source: US DOE

Project Finance Information Flow: ORIGINATION



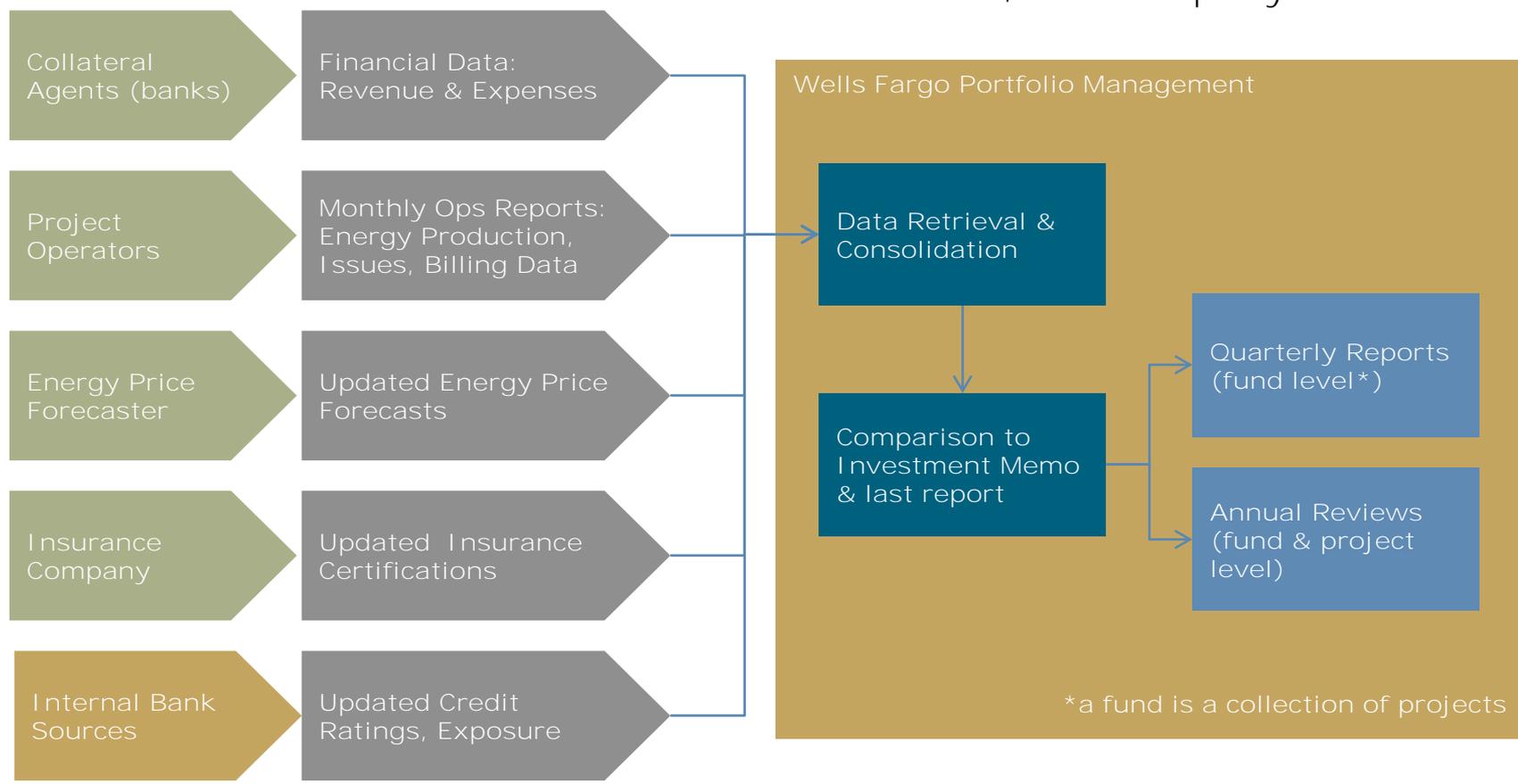


Data Flow with Data in Documents, "The Modern Way"



Project Finance Information Flow: PORTFOLIO MANAGEMENT

~12 files per fund/year
~5 files per project/year
~2,000 files per year



Portfolio Management Data Flow with Documents, “The Old Way”

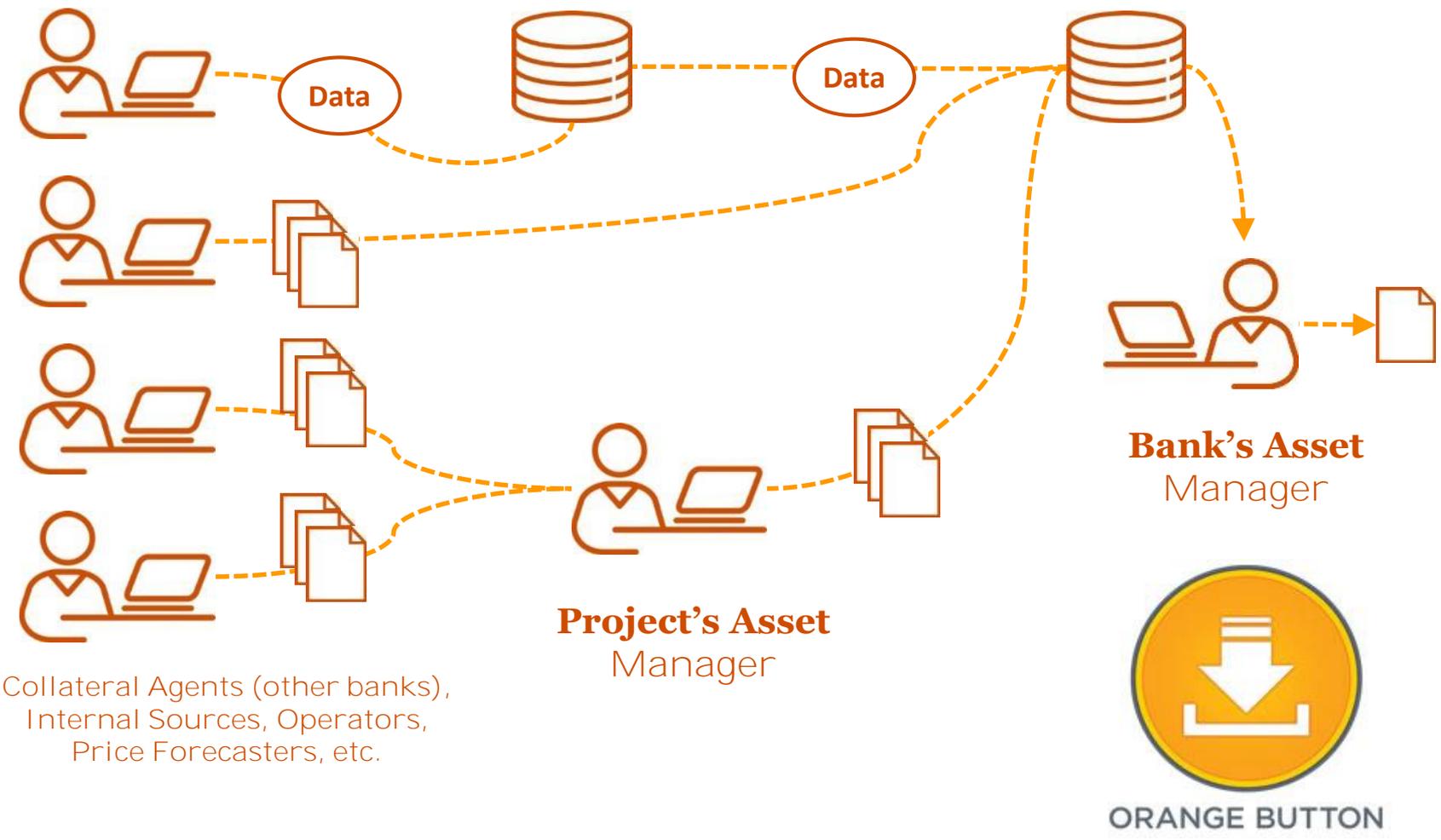


Collateral Agents (other banks),
Internal Sources, Operators,
Price Forecasters, etc.

**Project's Asset
Manager**

**Bank's Asset
Manager**

Portfolio Management Data Flow with Documents, "The Modern Way"



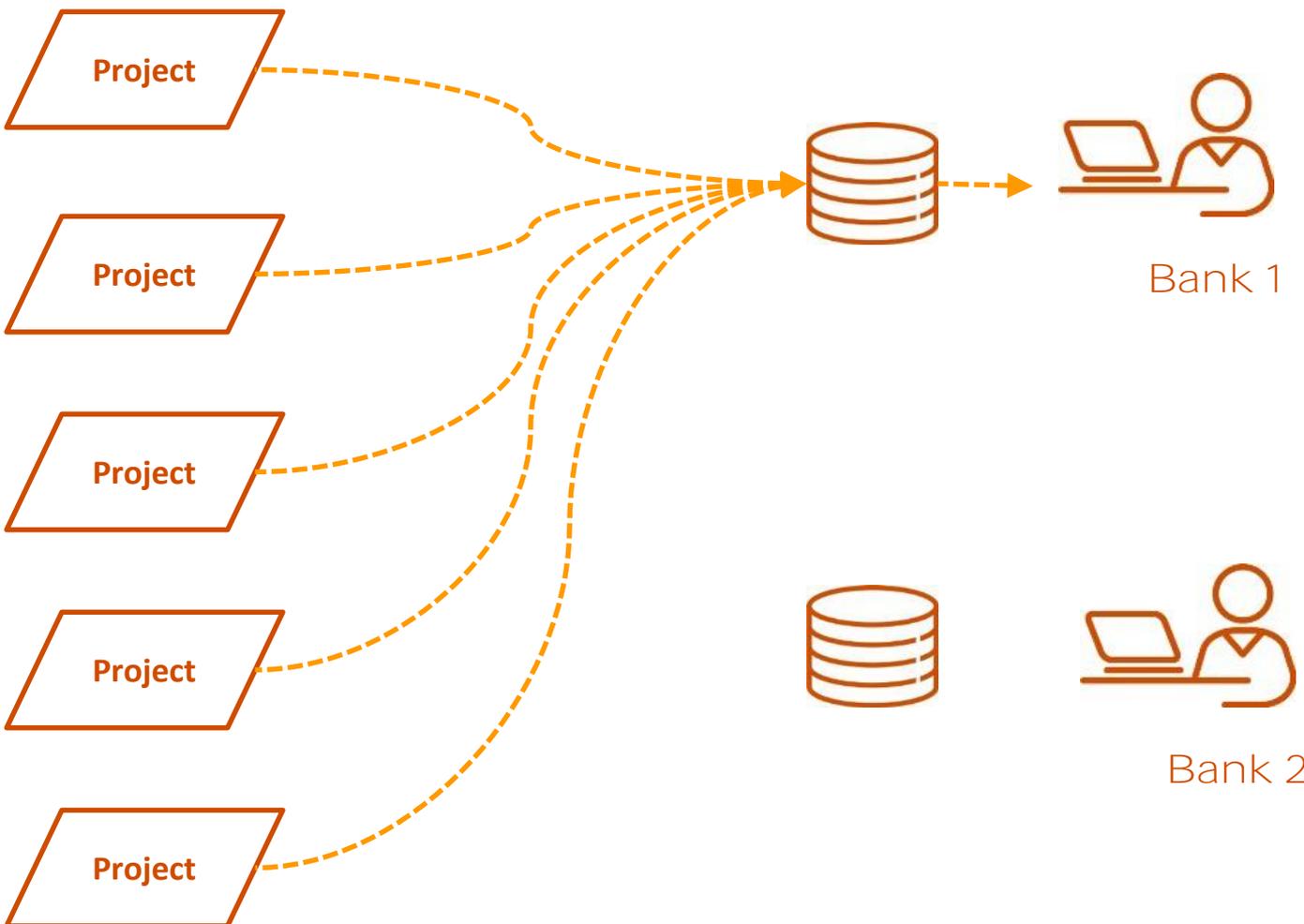
Collateral Agents (other banks),
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**Project's Asset
Manager**

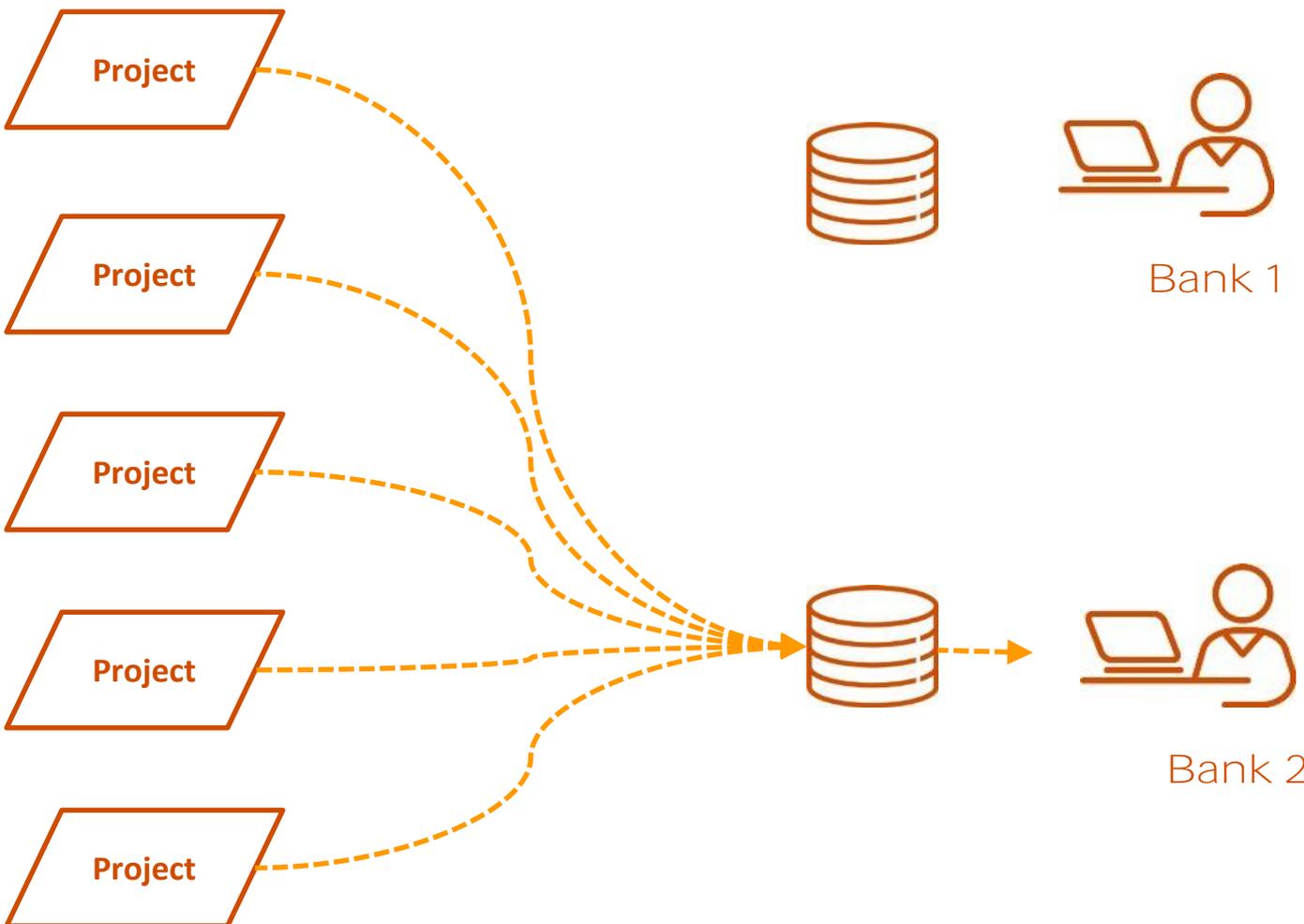
**Bank's Asset
Manager**



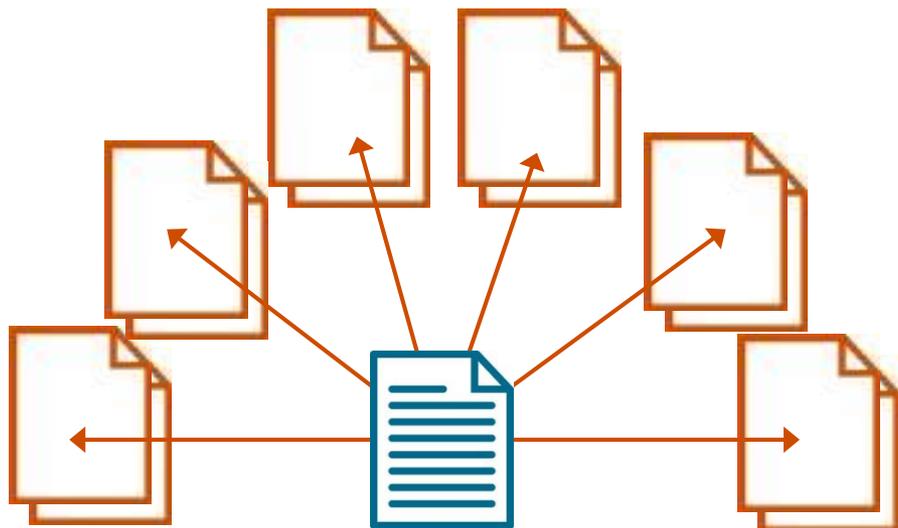
Data Streams can be Rerouted after Project/Portfolio Sales



Data Streams can be Rerouted after Project/Portfolio Sales



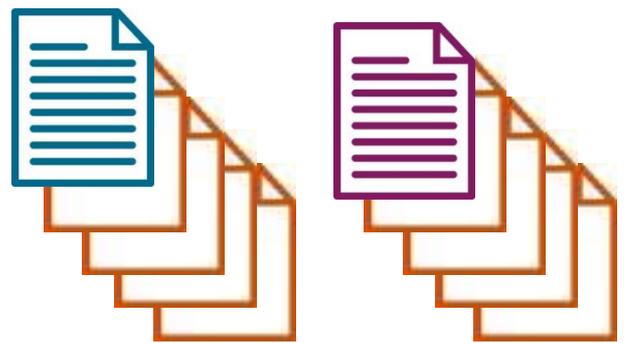
Another best practice that can be done right now:
 Like Documents for Multiple Projects with Reference Pages/Documents with Defined Terms



Like (the same) Project Documents, for each Project in a Portfolio or Fund.

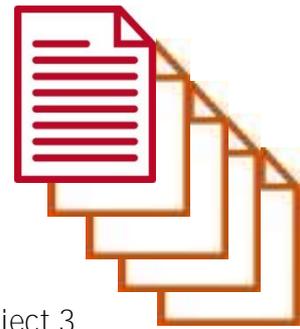
- Reference Document for each Project contains:
- Defined Terms
 - Unique Reference Values

Project 1

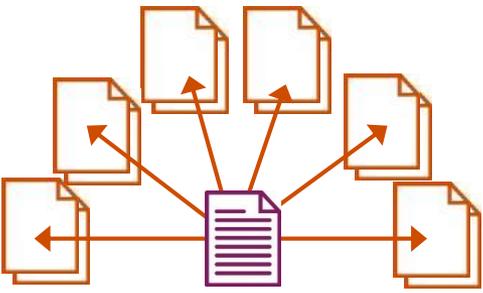


Project 1

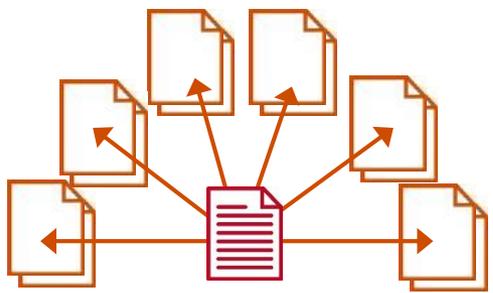
Project 2



Project 3



Project 2



Project 3

- Like bodies of Project Documents, for each Project in a Portfolio or Fund with unique Reference Pages with:
- Defined Terms
 - Unique Reference Values

Thank you!

Jonathan.m.previtali@wellsfargo.com

(415) 947-1980