

»» Mining Projects – from Discovery to Financing

December 11, 2013

Workshop – Financing Mining Projects
Embassy of Canada to Germany, Berlin

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Bank aus Verantwortung

KFW IPEX-Bank

»» Mining Projects – from Discovery to Financing

1

... KfW IPEX-Bank

2

... from Discovery to Production

3

... Requirements for Project Financing

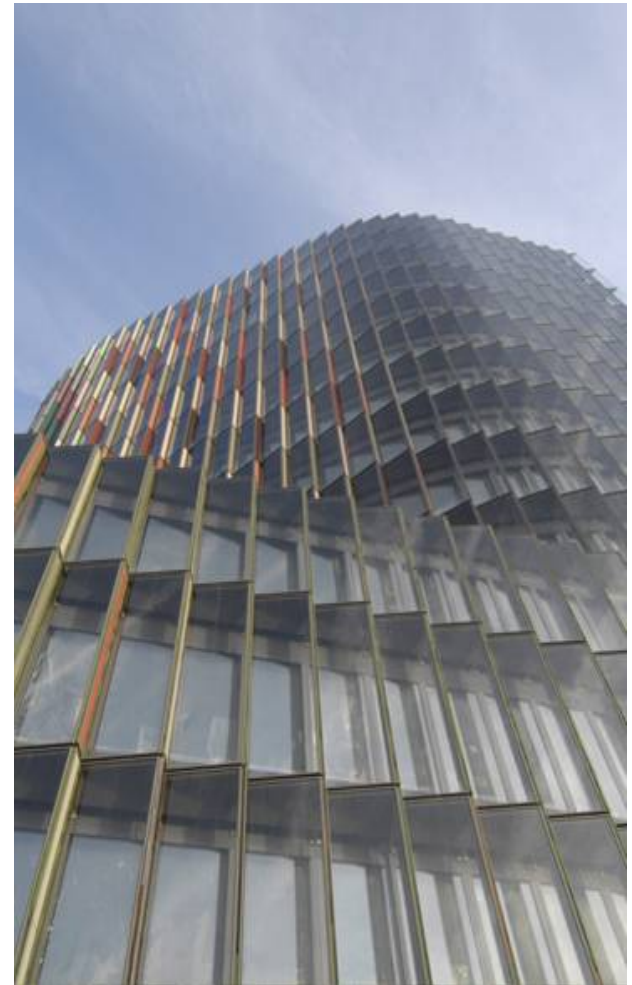
4

... Basic Project Finance Structure

»» KfW IPEX-Bank – our name speaks for itself

International Project and Export Finance from KfW

Name	KfW IPEX-Bank GmbH
Head office	Frankfurt am Main
Shareholders	100 % subsidiary of KfW Bankengruppe with stand-alone rating
Rating	AA (S&P) / Aa3 (Moody's)
Business volume	approx. EUR 61 billion*
Employees	approx. 570*
Focus	Financing of exports, infrastructure projects and environmental and climate protection projects and securing the supply of raw materials
Mission	For the last 60 years: supporting the internationalization and competitiveness of German and European export companies



* as of 31 December 2012

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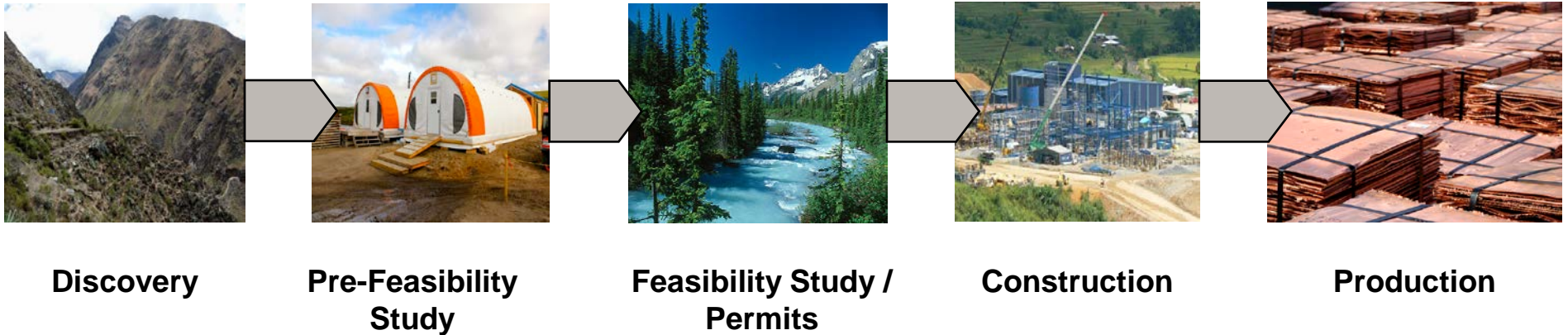
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... Basic Project Finance Structure

»» Phases of Project Development



1. Discovery of the raw material deposit

2. Pre-Feasibility Study

3. Feasibility Study

4. Financing and construction of the mining project

»» Phases of Project Development

Feasibility Study



→ Verification of alternatives regarding feasibility

What is the purpose of a Feasibility Study?

- avoidance of bad investments
- identification of the best alternative
- identification of risks

Results of a Feasibility Study:

- analysis and evaluation of considered alternatives
- decision-making options with documented risks and opportunities
- recommendation for a decision

»» Phases of Project Development

Contents Feasibility Study



The Feasibility Study is expected to deal with:

- Organizational Implementation
- Site Selection / Site Appraisal
- Economic Feasibility (cost-benefit analysis)
- Technical Feasibility (design analysis)
- Environmental & Social
- Resource Analysis (financial & human resources)
- Marketing and Market Demand Analysis
- Implementation Plan

→ Feasibility Study as basis / requirement for a bank financing

»» Phases of Project Development

Financing Methods



Discovery



Pre-Feasibility Study



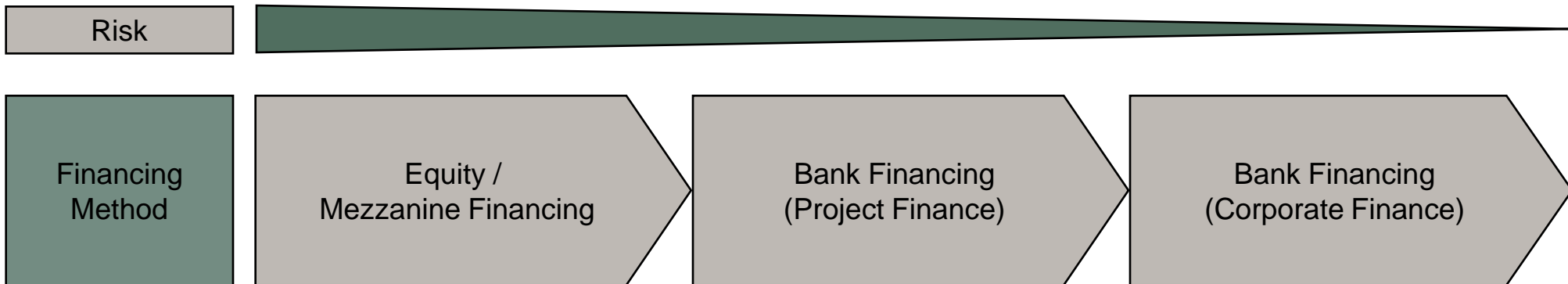
Feasibility Study / Permits



Construction



Production



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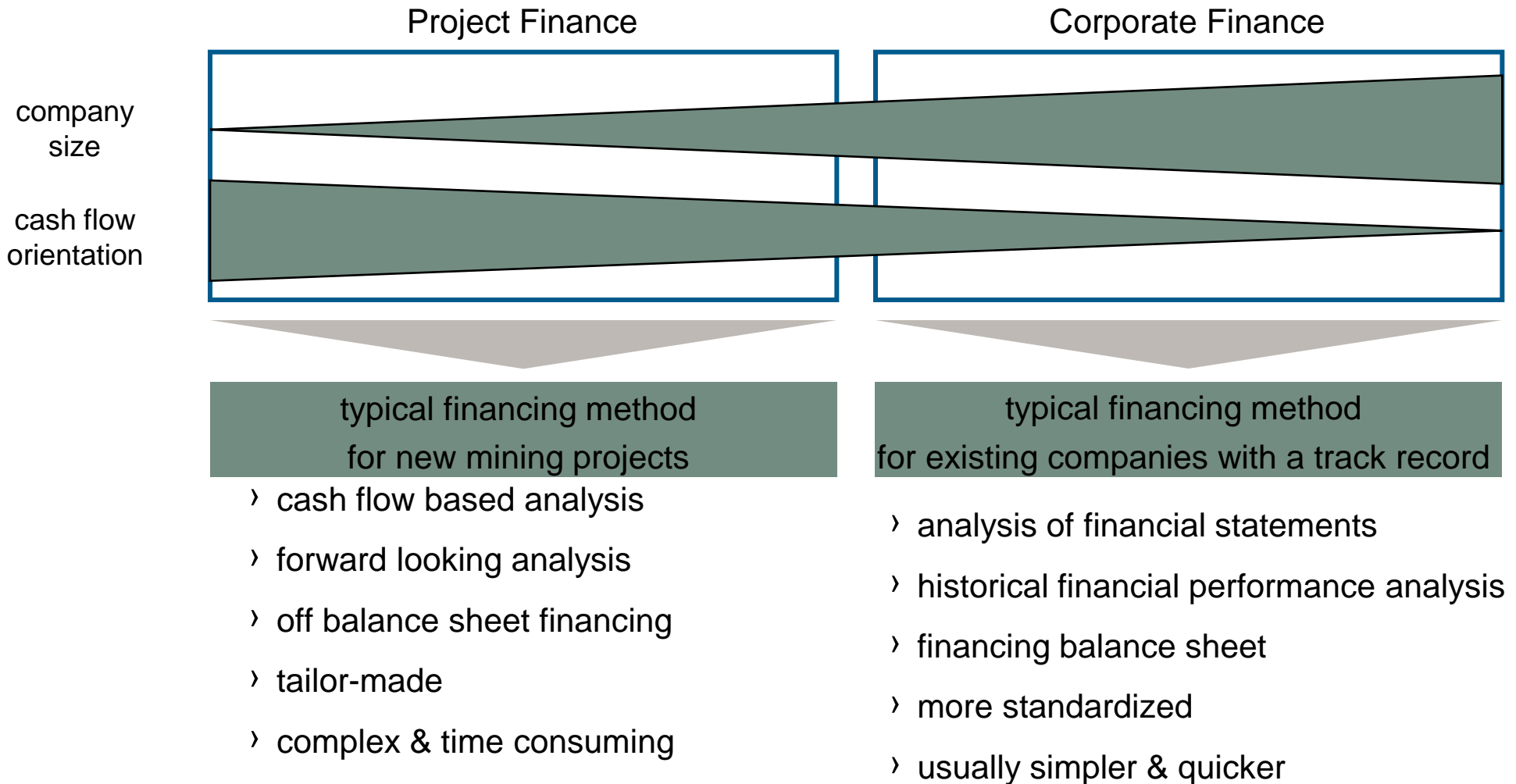
... **Requirements for Project Financing**

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»» Financing Methods

Bank Financing: Project Finance vs. Corporate Finance



»» Requirements for Project Financing

- › Feasibility Study with a positive outcome (“Bankable FS”) incl. calculation of mineral reserves in accordance with international standards (e.g. JORC Code, NI 43-101/ CIM Standard); verification by lenders (IE)
- › favorable position on the global cost curve (price risk)
- › financial model with a robust cash flow
- › equity contribution of 30 – 50 % (depending on project risk)
- › use of proven technology
- › compliance with international E&S standards (Equator Principles)
- › marketing concept (e.g. long-term off-take contracts)
- › sponsors with adequate know-how and staffing
- › construction contract (EPCM /EPC)

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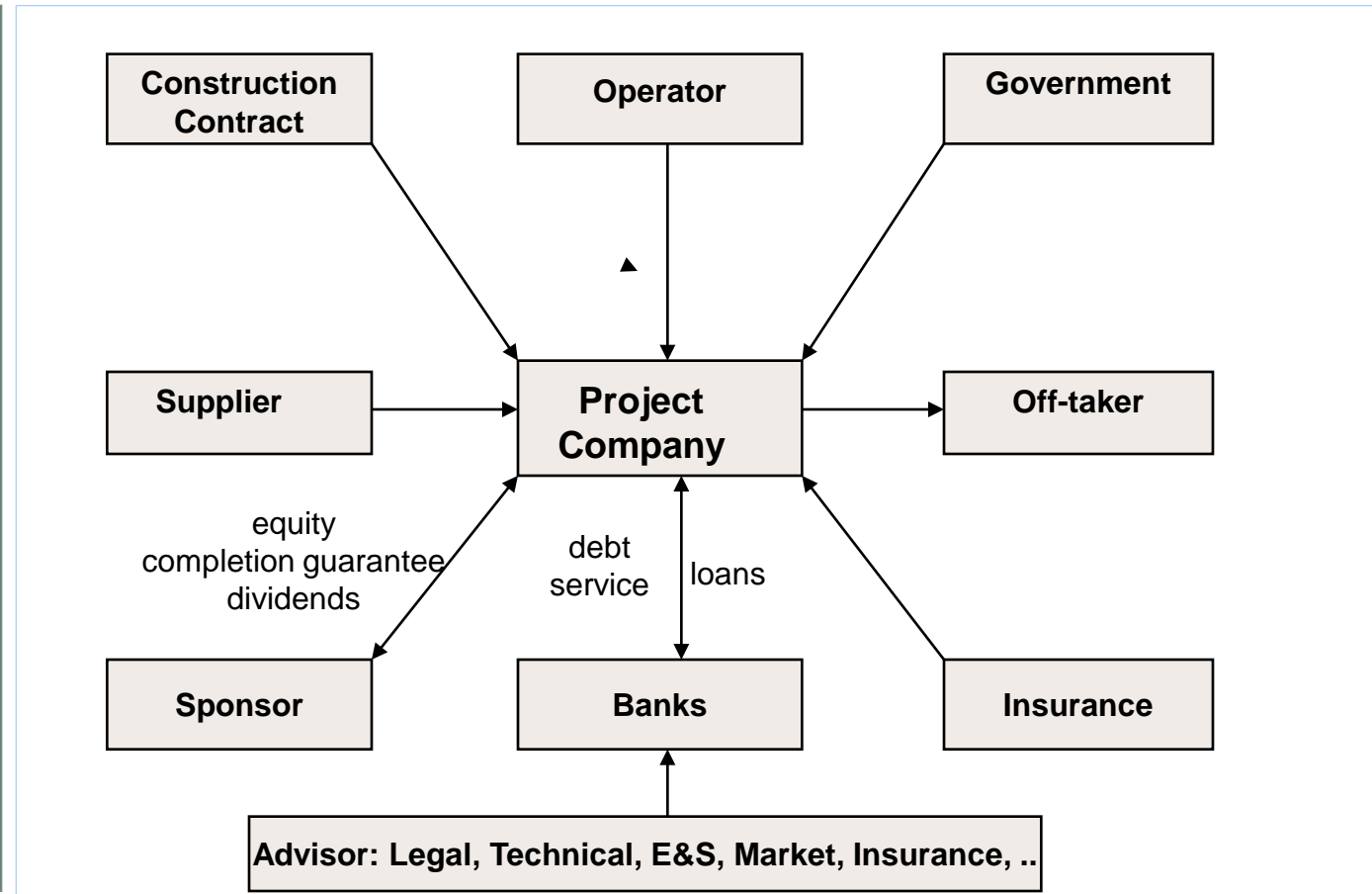
... **Basic Project Finance Structure**

»» Project Finance – Basic Principles

Features & Structure

► Features

- › borrower => special purpose vehicle
- › loan structuring and lending on the basis of projected cash flows
- › no recourse to the sponsors after project completion
- › risk sharing between all project parties



taylor-made financing structure for every project

»» Project Finance – Basic Principles

Success Factor: Mitigation of Key Risks

<u>Risk Category</u>	<u>Mitigation</u>
geological risk	mineral reserve categorization based on international standards
technical risk	proven technology, experienced project sponsors, experienced operations team, ...
completion risk	completion guarantee, experienced sponsors, construction contractor with track record, cost overrun funding, ...
E&S risk	compliance with international E&S standards (e.g. IFC/World Bank standards, Equator Principles), ...
market/price risk economics	off-take contracts, hedging, competitive cost structure, reserve tail, cash sweep, ...
management risk	experienced sponsors & operations team ...
political risk	ECA cover, PRI, offshore accounts, local sponsors, involvement of bi- and multilateral institutions, ...

Target: risk mitigation satisfactory to all project parties

»» Many thanks for your attention!

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