



The Financier's Perspective

The Business of Fuel Cells for
Stationary Applications

Eyeforfuelcells Conference Le
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Agenda

- Setting the Scene:
 - Myth and reality
 - An emerging industry
 - Drivers
 - The industry could do better ...
- Investment banking
- Funding
- Stock market performance
- Conclusions

The Boys' Own World of Fuel Cells: Myth

Consumer Electronics



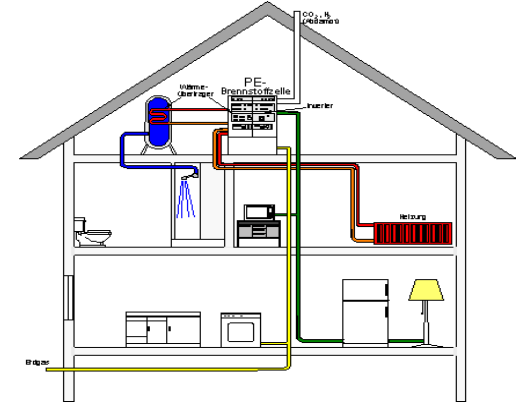
Miliwatts

Mobile Electronics



70kW to 300kW

The Natural Electric Home



1kW - 7.5kW

Commercial Power Plant



250kW

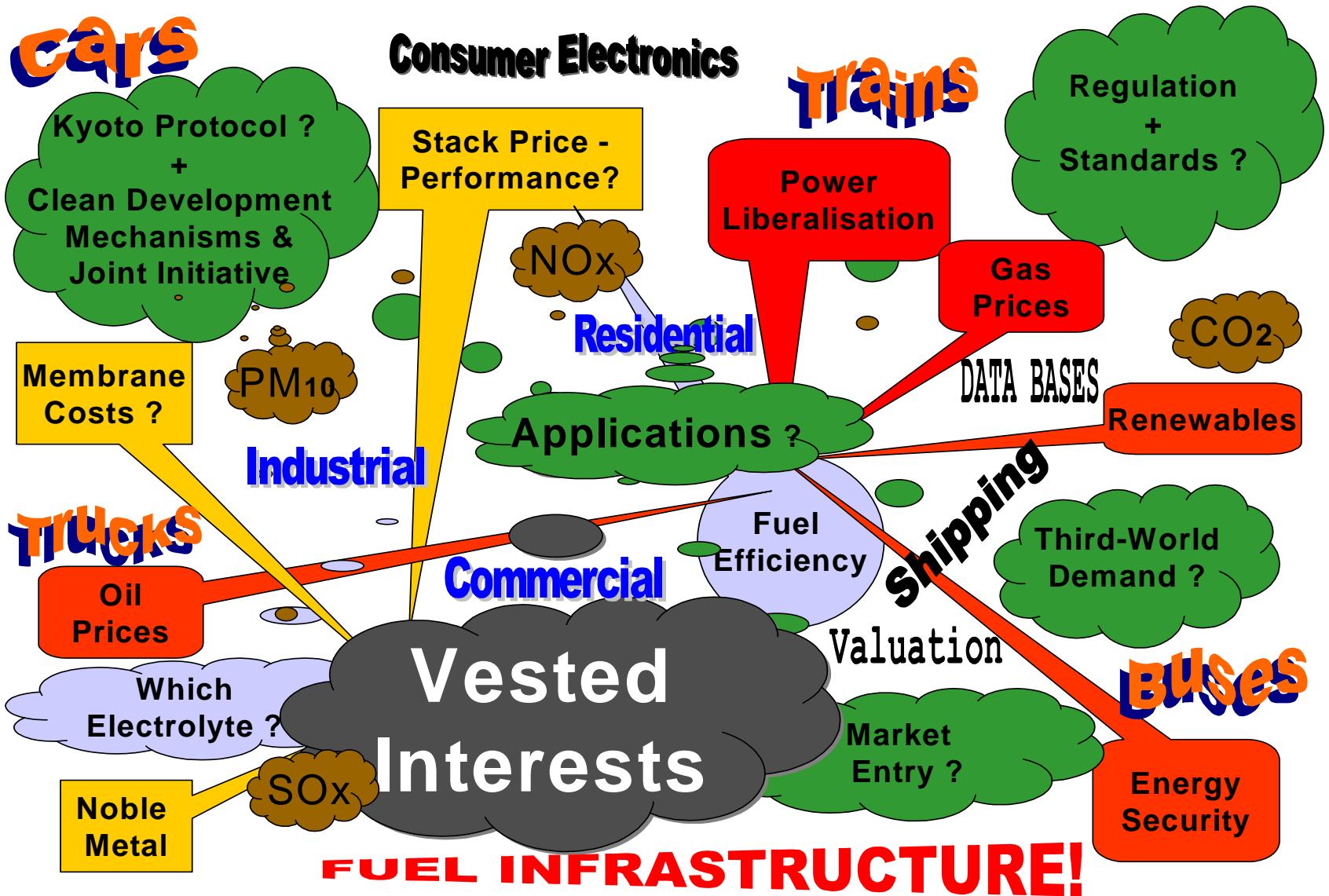
Industrial Power Plant



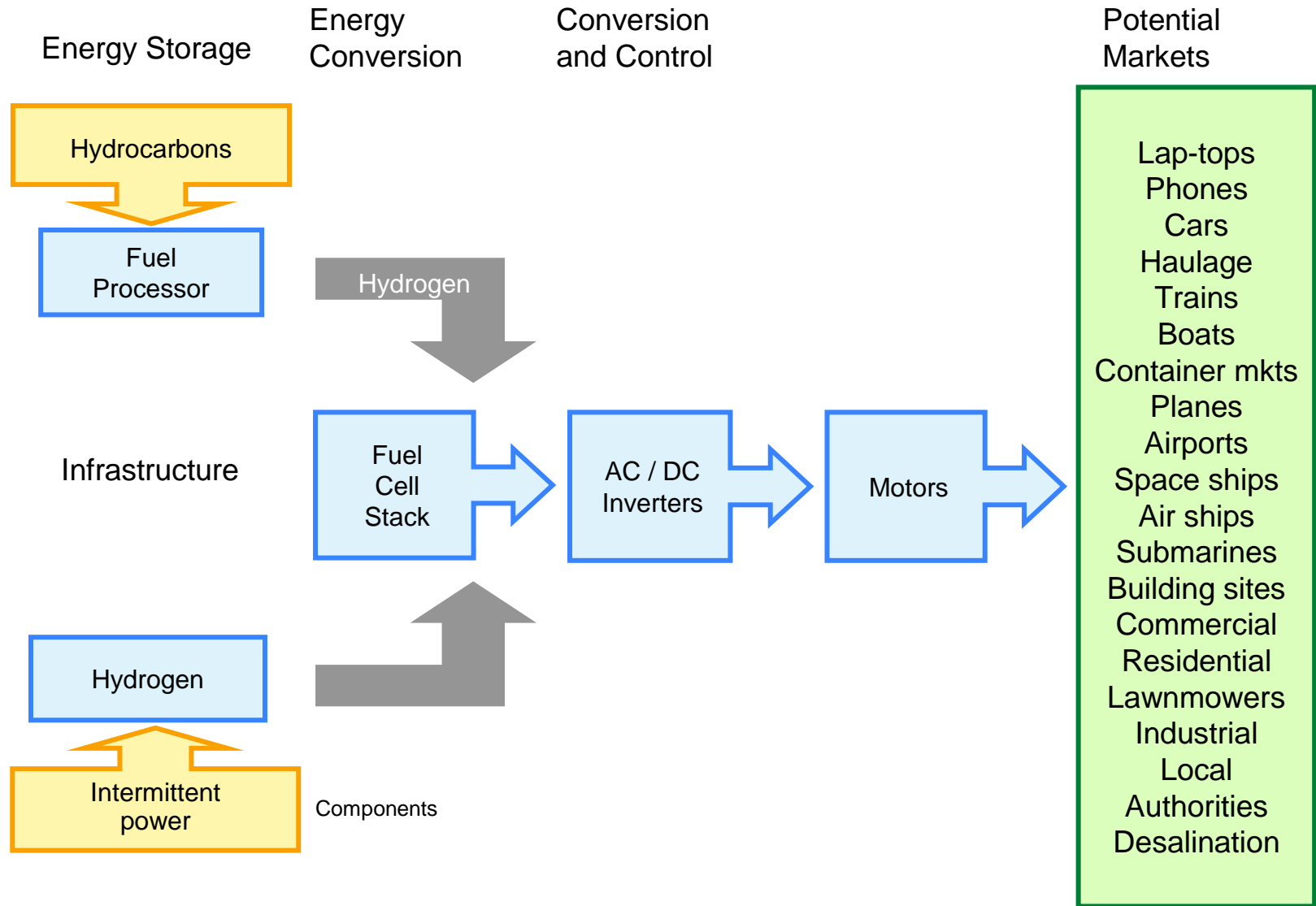
FCE's First Utility-Scale Demonstration in Santa Clara, California, U.S.A.

Multiple megawatts

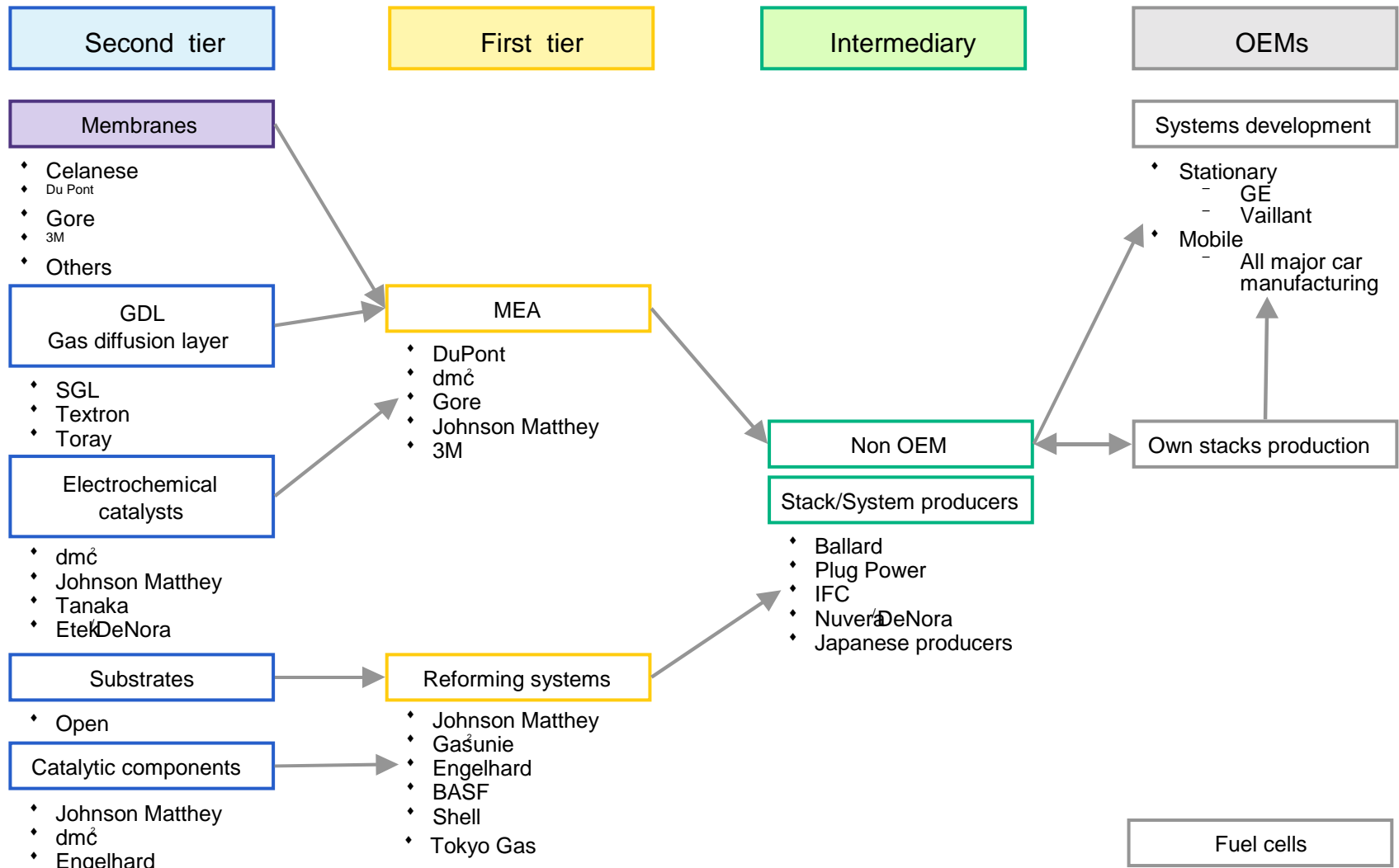
Reality is somewhat different



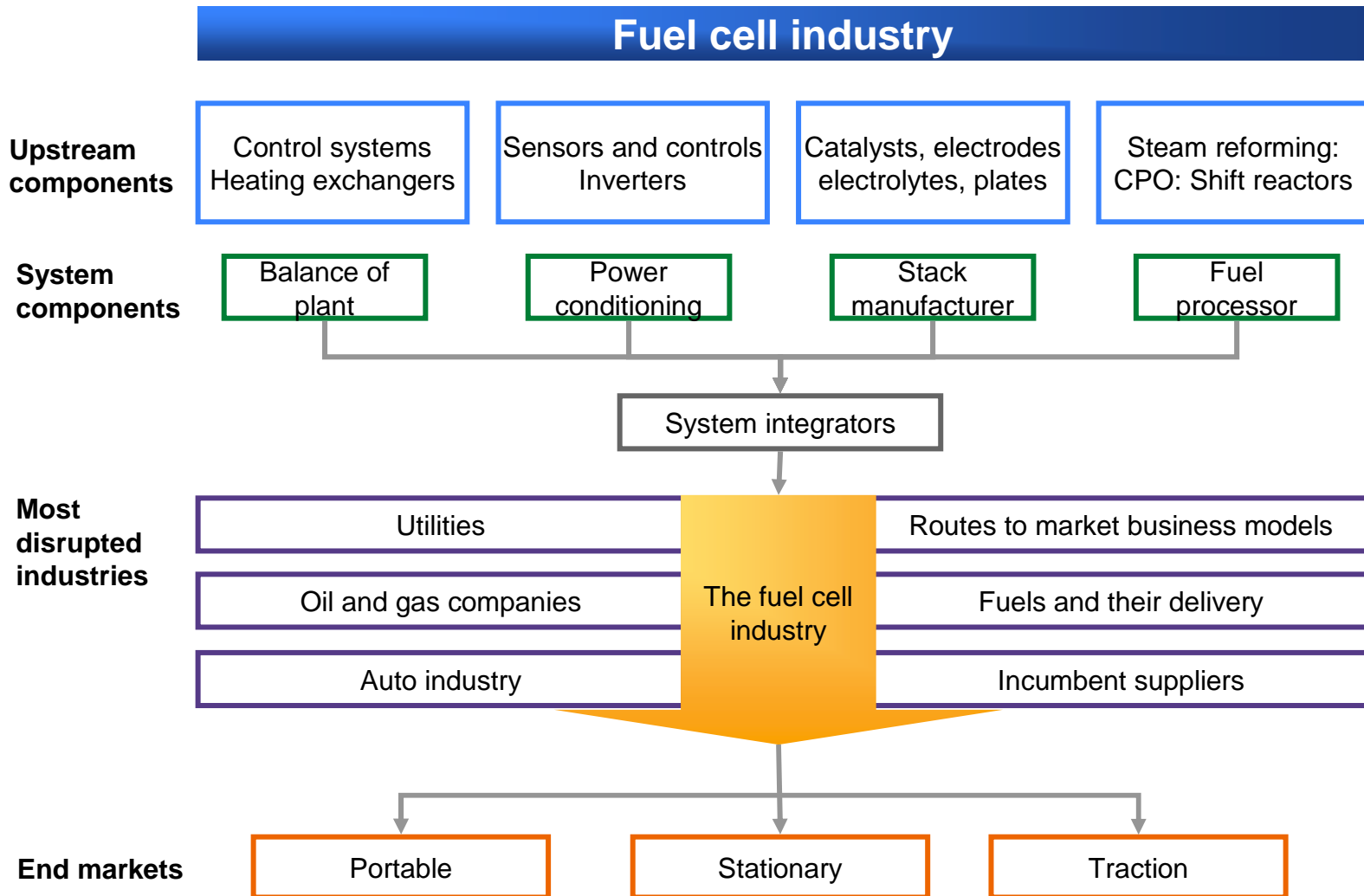
An outline of an emerging industry:



Which is being populated



And could put business models under pressure

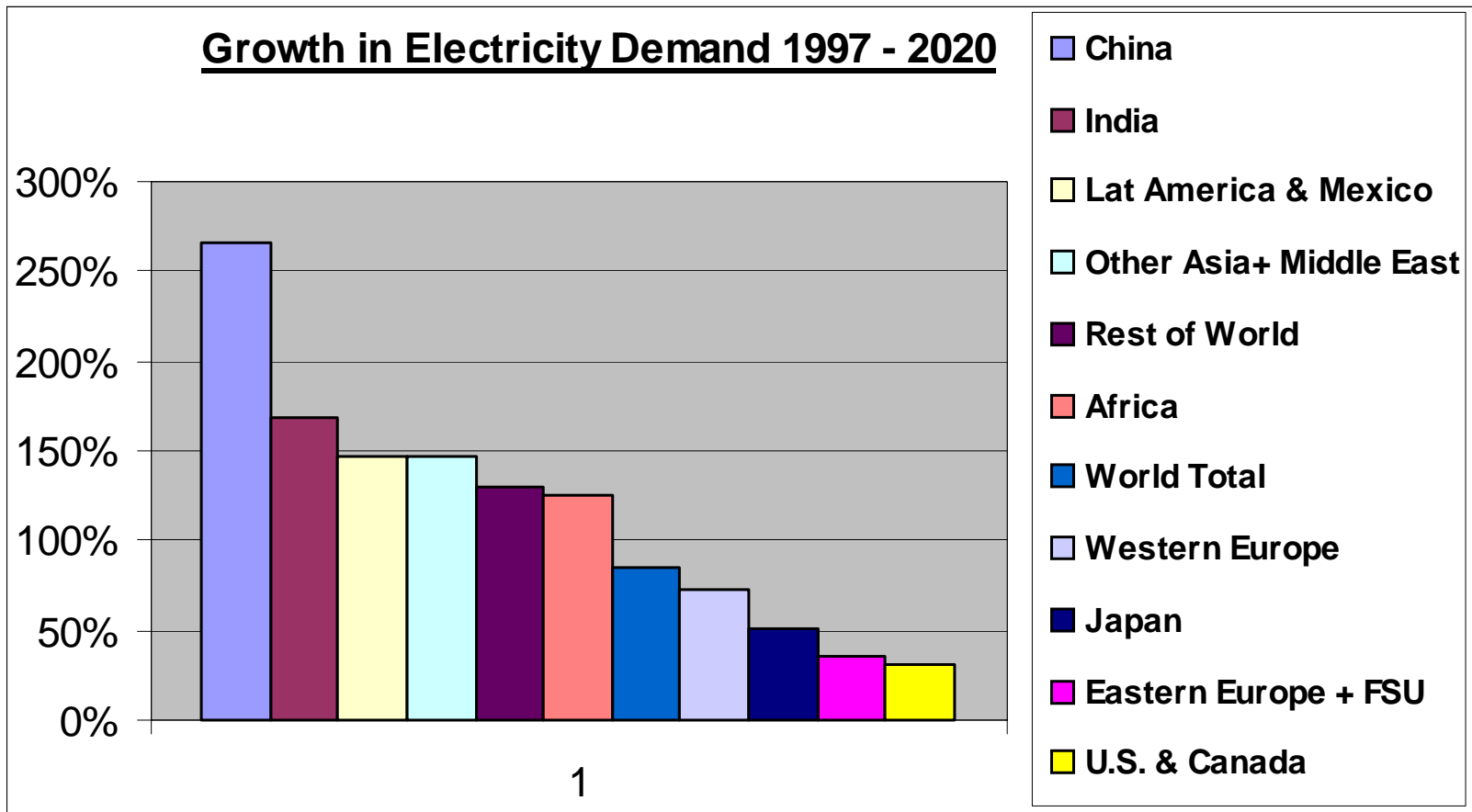




All the drivers are there

- Climate change and the Kyoto Protocol
- California and criteria pollutants
- Efficiency and the uncertain cost of primary energy
- First-World demand for premium power
- Global demand for energy to virtually double by 2020
- Persistent concerns surrounding energy security

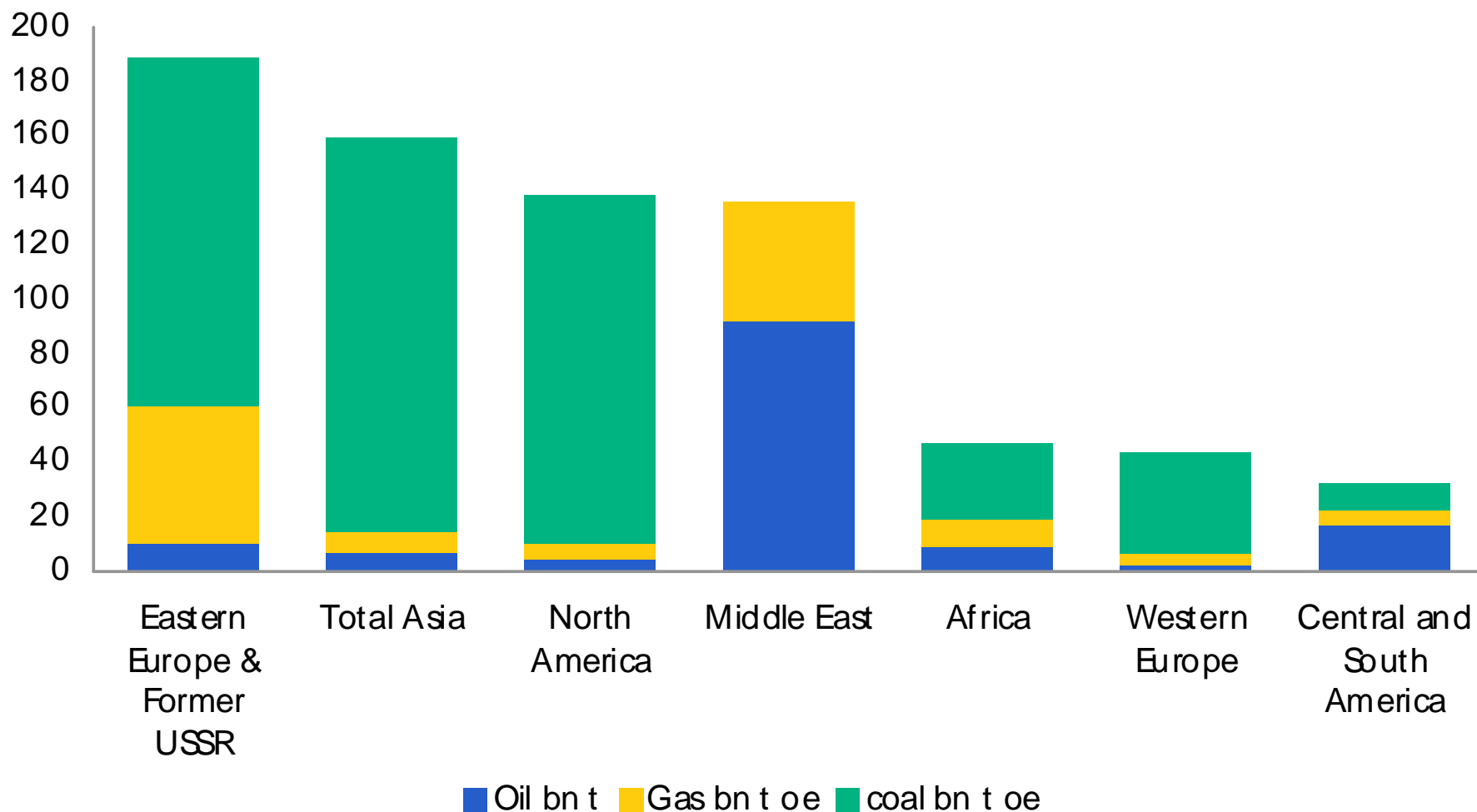
Energy and GDP go Hand in Hand



◆ China's generating base will rise by around 270% over the period, almost one order of magnitude greater than North America

◆ Yet China's 2020 per-capita base of just 643kW will be less than one fifth of the North American per capita base

Energy Insecurity: from one region to another



And the fuel cell industry could help itself

- By releasing consistent and meaningful operating data
- By taking more care in explaining that data
- By coming clean on costs
- Avoiding overoptimistic projections
- And unify under a common banner,

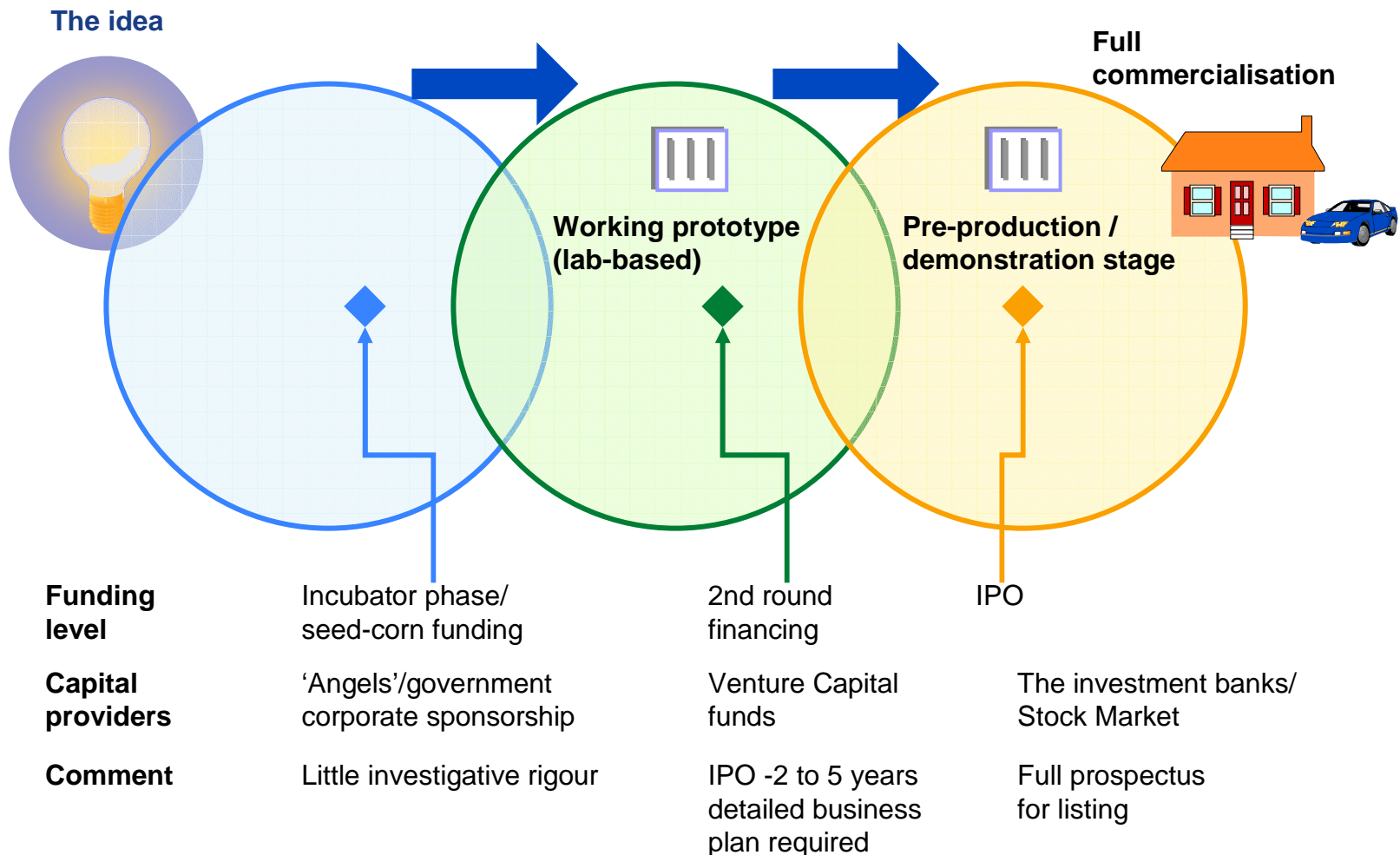
In other words ...

Its time for the industry to grow up

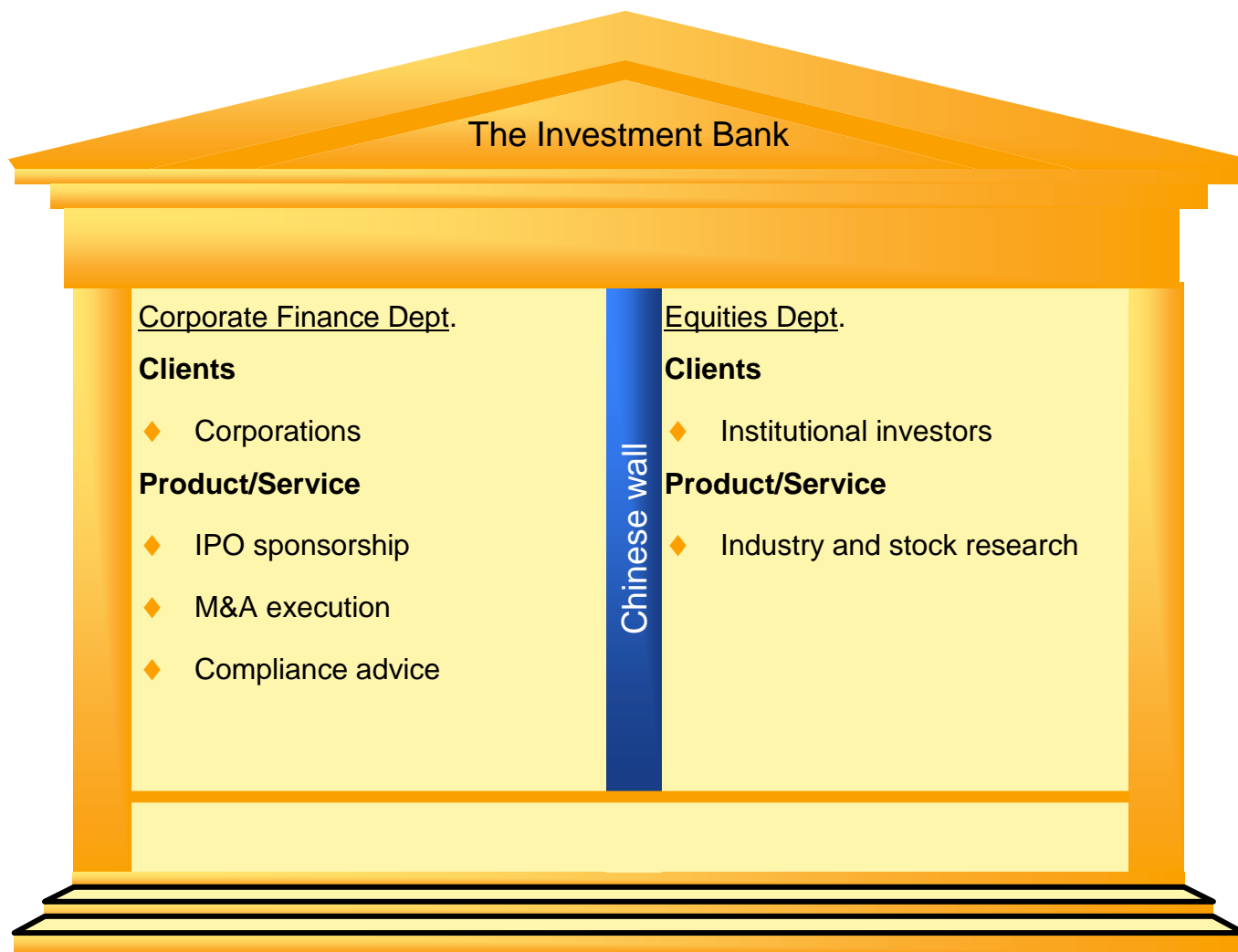


Investment Banking

Traditional view of the funding route



The Investment Bank's role



is in both Primary and Secondary

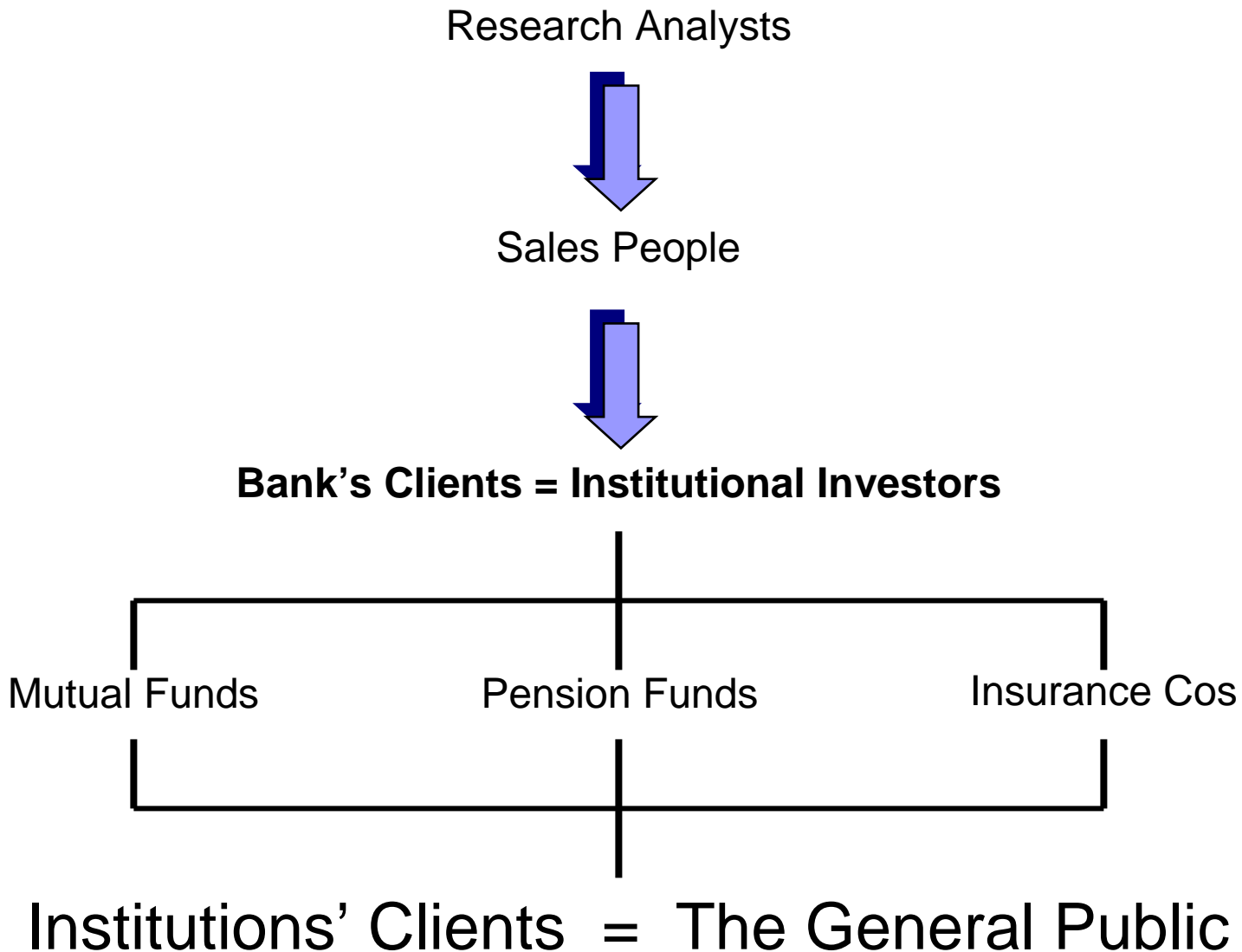


First Contact: Corporate Finance, which if Satisfied...

- Will test the business plan
- Prepare management presentations
- Co-ordinate lawyers, accountants, PR advisors and tax experts
- Prepare listing particulars/prospectus

An expensive process that can involve more than 50 professionals

But the equity department will sell the shares





It is important to remember

- A public floatation is the last link in a long chain
- The bank is unlikely to invest directly; it is a facilitator
- It will sell the shares but should also protect the company
- Can you defend your business plan to yourself and others?
- Does the bank understand your underlying business?
- Above all be honest pick your advisors well and don't go too early



Funding

Environmental and SRI funds are rapidly increasing

- USA¹⁾

\$2 trillion invested in a “socially responsible manner”, 13% of the \$16.3 trillion under management.

- Japan²⁾

Total volume: US\$ 2 bn, seven Eco funds launched in 1999

- Switzerland²⁾

Volume of existing public/inst. funds: CHF 3bn (2000), 9 environmental / ethical funds and 2 energy related investment trusts have been launched since mid 1997

- United Kingdom³⁾

In five years the volume of SRI funds rose from £791m to £3.3bn. Pension funds have been obliged to disclose their ethical/ social/ environmental investment policy since July 2000.

And last year provided at least US\$800m

Primary and secondary activity last year in North America

Company	Country	Amount raised (US\$)	Type of Issue
H-Power Corp	US	100,000,000	Primary
Millennium Cell Inc.	US	45,000,000	Primary
Hydrogenics Corp.	Canada	78,000,000	Primary
Stuart Energy	Canada	100,000,000	Primary
Ballard Power	Canada	346,000,000	Secondary
Global Thermo	Canada	70,000,000	Secondary
Fuelcell Energy Inc.	USA	61,000,000	Secondary
TOTAL		800,000,000	



Stock Market Performance

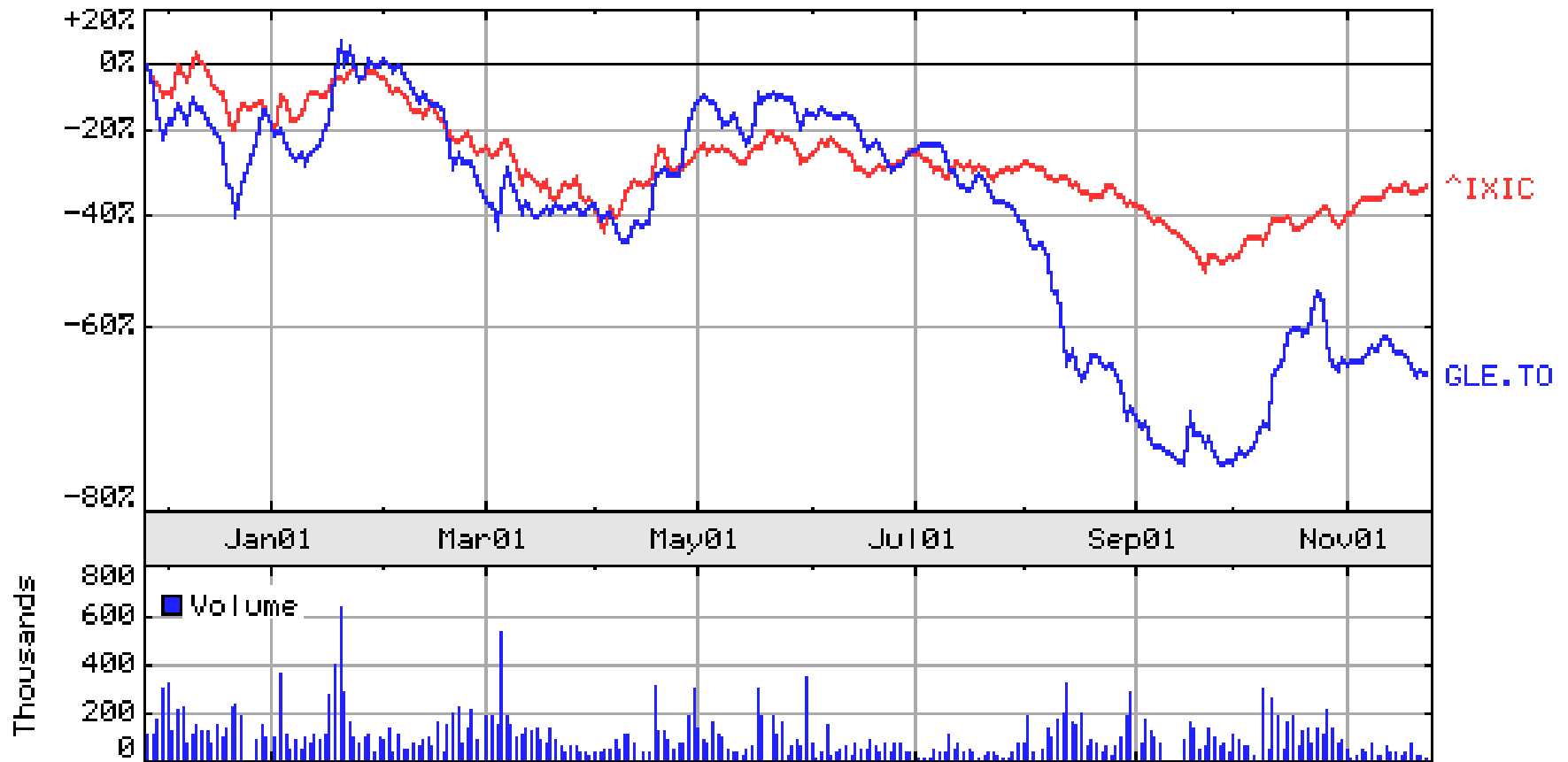
Ballard Power Systems: Solid Polymer

Ballard Power Systems Inc
as of 23-Nov-2001



Global Thermoelectric: Solid Oxide

Global Thermoelectric Inc
as of 23-Nov-2001



Fuel Cell Energy: Molten Carbonate

Fuelcell Energy Inc
as of 23-Nov-2001

Splits: ▼



Conclusions

There is growing interest in the fuel cell industry

- from all financial quarters and increasingly from investors
- focus is on North American companies, who are not necessarily technically superior, but have the advantage of being quoted
- Europeans are considering capital markets as a source of funding, **BUT KNOW YOUR BANKER!**

But the Fuel Cell industry could help itself

- by coming clean with operating data
- by coming clean with cost data, and
- by avoiding overoptimistic projections and by being honest

Meanwhile Governments could lay the ground work and create the jobs of

the future by

- Promoting large-scale demonstration projects
- Promotion of equitable regulatory and legal and fiscal framework
- Commitment to Education and Training



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