DATAFEED — TOTAL INDUSTRY

We have agreed that the Rama is an administrative device, and that the proper element of TOTAL INDUSTRY is the sector.

Then when Staffy is set up for TOTAL INDUSTRY it will not show the Ramas as elemental operations (although it can do so, and may be thus set up for administrative purposes) but it will show the Sectors — grouped by their molecular taxonomic performance indices into five modules.
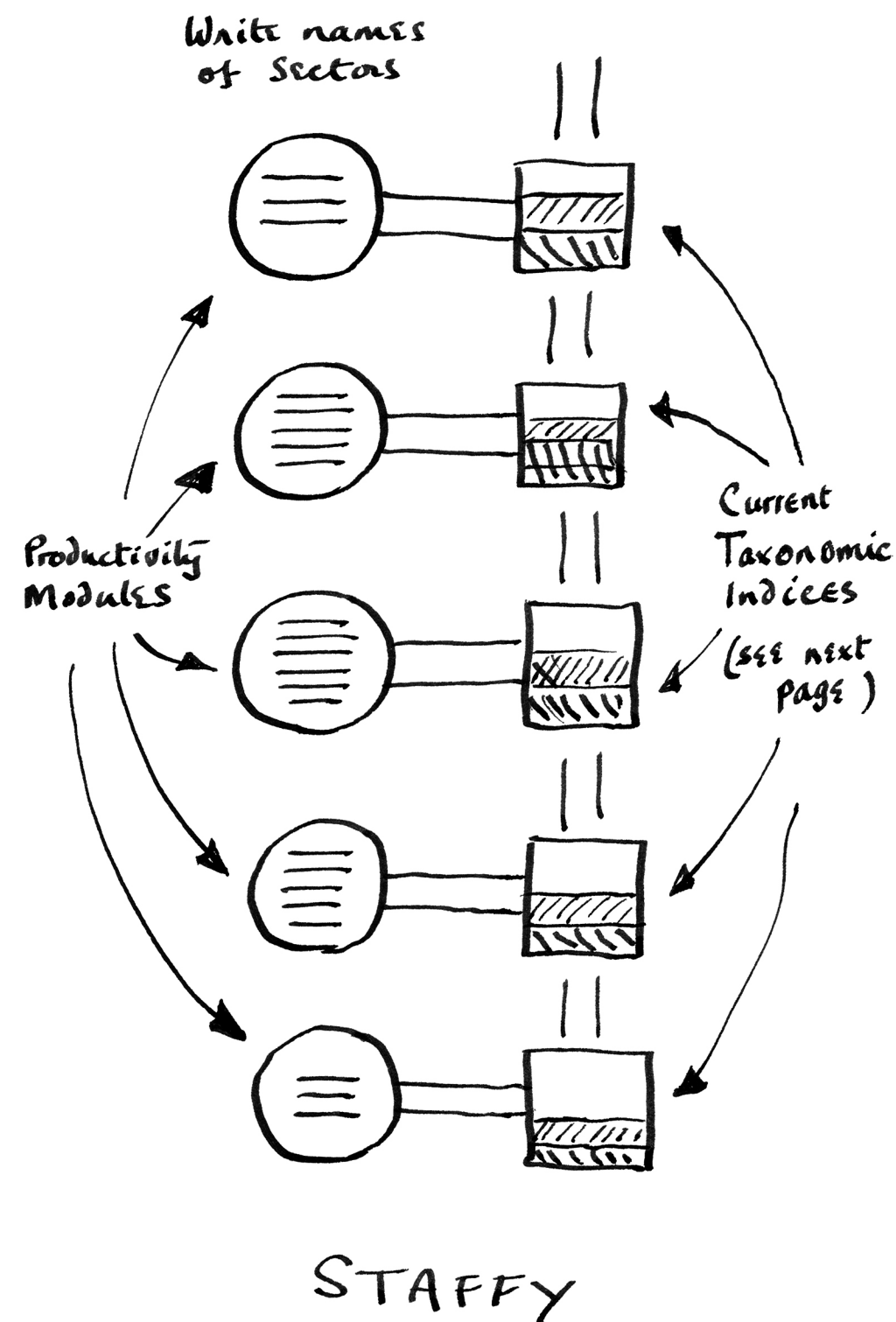
On considerations of variety engineering, it is most important that all figures given are sector-molecular. Users should be shown that whoever contemplates Total Industry has all the variety he can handle in the interactions of twenty sectors.

If that same person is insistent that he wants to know sub-sector or enterprise data, he should be invited to a sector committee meeting to see it. He will then realize, better than logic can explain the matter, that he has moved down one level of recursion.

We must make the attempt to teach System 5 (at whatever level of recursion) its proper role. It is endemic in current management that System 5 collapses into the role of System 3 — killing off System 4 and destroying the whole metasystem on the way. Let this not happen here.
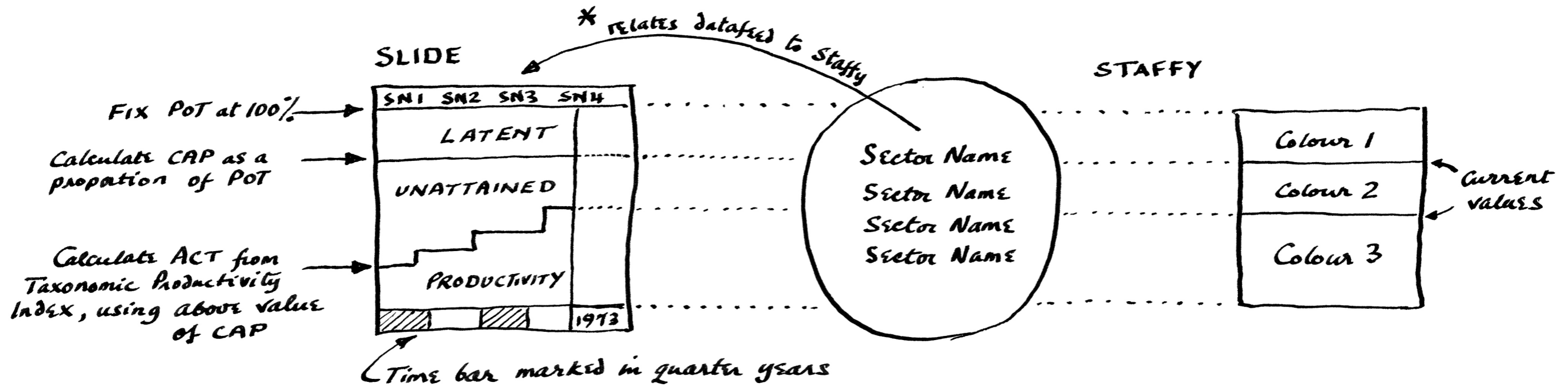
The Sector Performance League

Write names of Sectors

Productivity Modules

Current Taxonomic Indices (see next page)

STAFFY

This is not an easy problem, and I have been rethinking it.

Consider two problems about presenting the history in the usual linear form :—

(i) The productivity and latency indices are quite likely to be close together, and might even interlace;

(ii) The performance index (as the product of two fractions) is lower than either — and this is counterintuitive.

I propose the following : —

FIX POT at 100% ⟶

Calculate CAP as a propation of POT ⟶

Calculate ACT from Taxonomic Productivity Index, using above value of CAP ⟶

* relates datafeed to Staffy

SLIDE

| SN1 SN2 SN3 SN4 |
| LATENT |
| UNATTAINED |
| PRODUCTIVITY ... 1973 |

Time bar marked in quarter years

Sector Name / Sector Name / Sector Name / Sector Name

STAFFY

| Colour 1 |
| Colour 2 |
| Colour 3 |

⟵ Current values

EXAMPLE :

$$Performance = \cdot 4 \begin{cases} Latency = \cdot 8 \\ Productivity = \cdot 5 \end{cases}$$

	Situation	Transformation	Presentation
	POT = 720	⟶	100
	CAP = 600	$\div 7.2$ ⟶	83
	ACT = 300	$83 \times \cdot 5$ ⟶	41.5

This looks like yet another subroutine for the Cyberstride Suite!

* As shown, the name of the slide (SN1 SN2 SN3 SN4) relates to the SUMMARY Control Set on the next page. For the SECTOR Control Sets in Total Industry, the slide heading would read:

SECTOR NAME   ENTERPRISE 1   2   3
└ to relate to Staffy   └ drawn from the Sector's Productivity modules

} Unfortunately we can't change Staffy to each Sector in turn while handling Total Industry.

TOTAL INDUSTRY
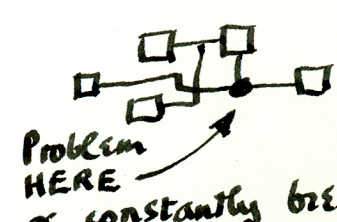## Specification for
CONTROL SET — SELECTION 2

Sector Data (× 19)

T-Ax-y —1 to 20	T-Bx-y —1 to 20	T-Cx-y —1 to 20
TOTAL F/C HIGHLIGHT RAMA A	RAMA A F/C HIGHLIGHT SECTOR X	SECTOR X F/C
SECTOR MOLECULAR TAX PERF	PRODUCT ANNOTATIONS	LATENCY ANNOTATIONS
MODULE 1 TAX — PERF	"	"
MODULE 2 TAX — PERF	"	"
MODULE 3 TAX — PERF	"	"
MODULE 4 TAX PERF	"	"
MODULE 5 TAX — PERF	"	"
INVESTMENT PLANS — TITLE 1	SECTOR MOLECULAR TAX ABSENT	INVESTMENT PLANS — CRITICAL PATH 1
" 2	MODULE 1 TAX ABSENT	2
" 3	MODULE 2 TAX ABSENT	3
" 4	MODULE 3 TAX ABSENT	4
" 5	MODULE 4 TAX ABSENT	5
INTERNATL COMPARISONS CHILE/L-A	MODULE 5 TAX ABSENT	SECTOR MOLECULAR TAX QUAL
"	INVESTMENT PLANS — MAPS/PHOTOS	MODULE 1 TAX QUAL
HOW SECTOR MOLECULAR FIGURES ARE FORMED	" 2	MODULE 2 TAX QUAL
INPUTS TO SECTOR — HIGHLIGHT BOTTLENECKS	" 3	MODULE 3 TAX QUAL
OUTPUTS FROM SECTOR HIGHLIGHT UNFILLED NEED	" 4	MODULE 4 TAX QUAL
	" 5	MODULE 5 TAX QUAL
	INTENATL COMPARISONS L-A/WORLD	INTERNATL COMPARISONS PROGNOSES
	"	"

Redundancy!

COMMENTARY

1. The emphasis is on performance, because this is the great need. The rest is supportive of better performance.

2. If performance is to be fully discussed, the TAX presentation requires amplification. Hence

   (a) productivity annotations: we must find some way of elucidating the problems so that managers can solve them. This is really the task of 'our man' on the Sector Committee. I foresee a slide:

   > Press [C] xxxxx   (to get the Sector F/C)
   > (diagram magnifying a piece of F/C)
   > Problem HERE
   > x constantly breaks down

   (b) Latency annotations: easier. We know very well what stops us from evaluating capability more highly. We say so. Add:

   > Press [A] xxxxx
   > [B] xxxxx

   to look at the relevant investment plans. After that discussion, we can lose the 'problem' on [C] + pick up the critical path.

3. Investment plans. Why 5? — Don't overload (limit = 7±2 — preferably 5). Obviously we choose important projects, + perhaps group the less important.

   Screen A : 'Title' means a description in brief — with costs, dates....
   Screen B : Maps/Photos — make it REAL.
   Screen C : Critical paths should not be the usual Engineering schema, but more dramatic — highlighted.

4. International Comparisons. Intended to provide contextual information about Chile's place (vis-a-vis the sector) in Latin America + the world.
   Prognoses refers to new developments. If relevant new machinery has been invented in Bongoland, illustrate + explain it.

5. The slide to show users how the molecule has been formulated is requisite. Managers will want to know — + predictably they will be critical. Let us not be defensive: ALL methods of aggregation are deficient. Experiment, in collaboration with users, could be the subject of a special presentation on the overhead projectors.

TOTAL INDUSTRY
Specification for
CONTROL SET — SELECTION 2

Summary Data
(first line of Master Index)
Modules now relate directly to Staffy display.

T-A1-1- 1 to 20	T-B1-1 -1 to 20	T-C1-1 -1 to 20
TOTAL F/c Section 1	TOTAL F/c Section 2	TOTAL F/c Section 3
INDUSTRY MOLECULAR TAX PERF	PRODUCTY ANNOTATIONS	LATENCY ANNOTATIONS
MODULE 1 TAX PERF	"	"
MODULE 2 TAX PERF	"	"
MODULE 3 TAX PERF	"	"
MODULE 4 TAX PERF	"	"
MODULE 5 TAX PERF	"	"
FOREIGN EXCHANGE RESERVES	INDUSTRY MOLECULAR TAX ABSENT	INDUSTRY MOLECULAR TAX QUAL
INTER-SECTOR COMPARISONS PERF	INTER-SECTOR COMPARISONS ABSENT	INTER-SECTOR COMPARISONS QUAL
INVESTMENT PLANS— TITLE 1	INVESTMENT PLANS— MAPS/PHOTOS	INVESTMENT PLANS - CRITICAL PATH
" 2	" 2	" 2
" 3	" 3	" 3
" 4	" 4	" 4
" 5	" 5	" 5
PUBLIC/PRIVATE COMPARISONS - SIZE	PUB/PRIV COMPARISONS - PERF	PUB/PRIV COMPARISONS - WORKERS INCOME
INTERNATL COMPARISONS CHILE-LA	INTERNATL COMPARISONS LA-WORLD	INTERNATL COMPARISONS PROGNOSES
HOW INDUSTRY MOLECULAR FIGURES ARE FORMED	"	"

COMMENTARY

1. Previous comments apply, mutatis mutandis.
2. 'Investment plans' are now rather different, referring not to the individual projects, but to summations of projects — & if possible relating them to the FUTURO screen.
3. There ought to be measures of public v. private elements in the economy. I do not yet know how — do you?
4. I fought hard to keep the last nine slides in reserve. We shall need them!

CONCLUSION

I have spent many hours studying your drafts, for which I thank you, and in experimenting with Gui's paper slips (that was a practical breakthrough!).

It is a disappointment that no quite general principles seem to emerge — for I feel that they exist. But we shall learn. If these slide groupings turn out to be inept, nothing is lost. The information is needed & groupings can readily be changed.

There is perhaps one useful discovery. This is the fact that a data slide can contain indexical information:

Now press ☐ *****

We should use this trick as much as we can. It helps to tie the control screen & data screens together; and it turns Datafeed — in part — into a heuristic teaching machine.

Good luck at the Sector level. There is of course no need whatever to try and use all 1200 slides. It is not surprising that I have nearly done so at the TOTAL recursion.

Stafford Beer
Santiago
5ᵗʰ September 1972