International conference on

Sustainability Engineering & Science

(NZSSES,ICSCER)

Driving sustainability into business strategy

Quentin Leiper
Director for Engineering and the Environment
Carillion Plc

9 July 2004

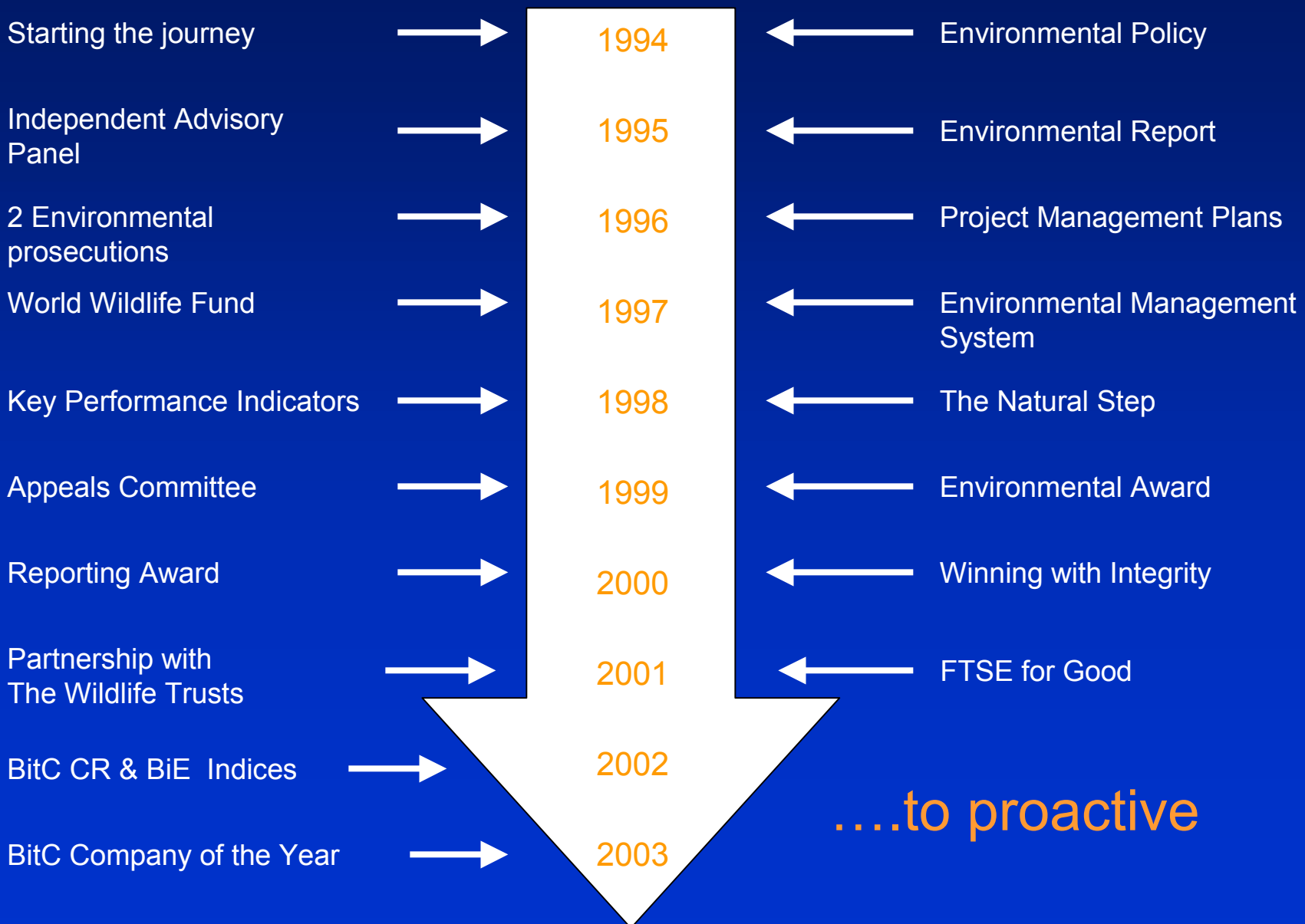
2 minute video clip first!

Introduction to Carillion

- “Construction to Services” organisation
- Demerged from Tarmac in May 1999
- 18000 people, £2bn turnover
- We do Buildings, Civil Engineering, Road and Rail Maintenance, Facilities Management, Design
- UK and overseas…. M25 for the HA, Royal Parks in London, Trafalgar Square remodelling, Canary Wharf Station, Tate Modern, Met Police offices, Copenhagen Metro……and an immersed tube tunnel in Cork!

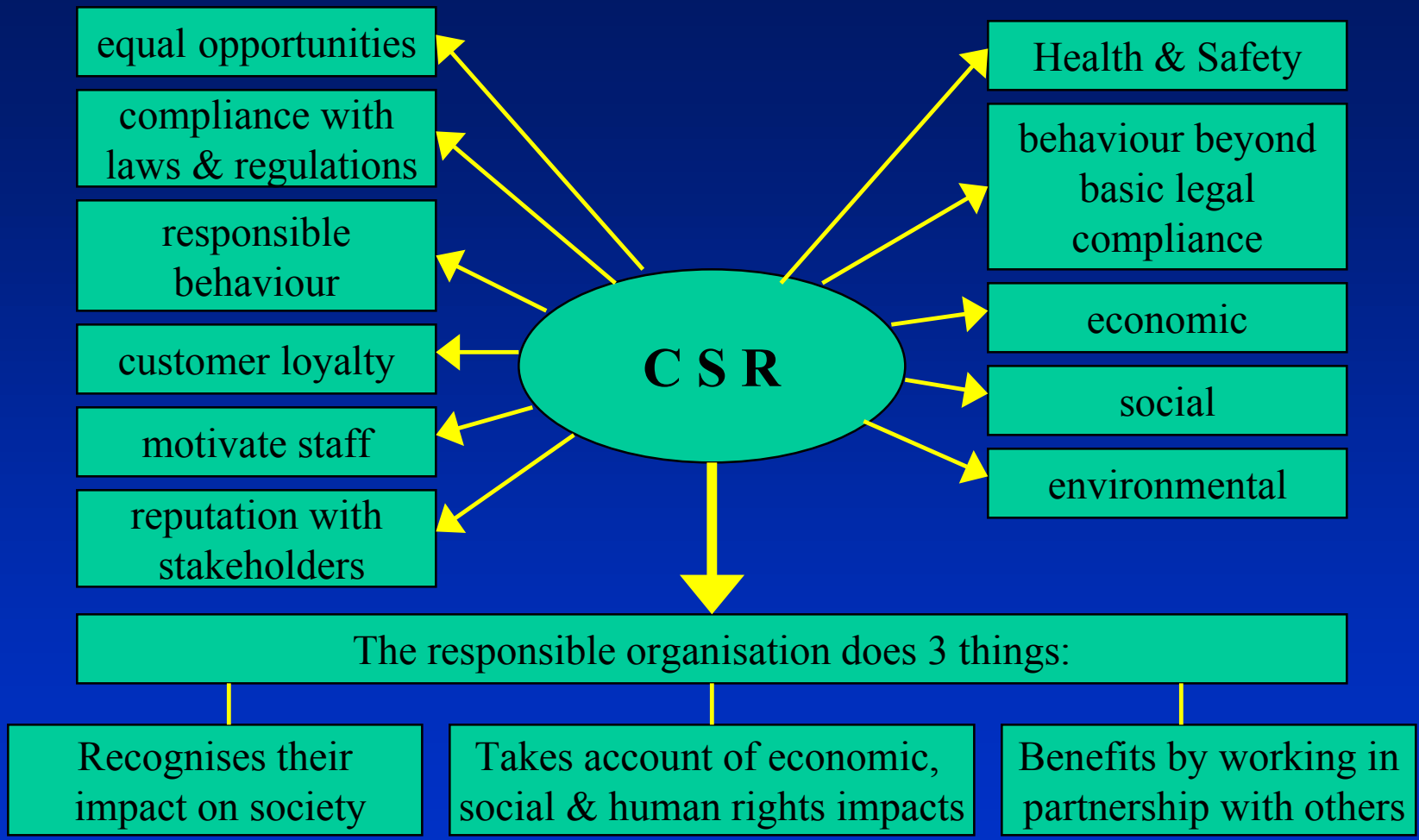
and also working with the homeless, schools and universities, The Wildlife Trusts and many many local communities and organisations (including WWF and Greenpeace!)

From reactive …….Twyford Down, milk and R2



….to proactive

CSR as defined by DTI Business & Social CSR Report 2002 on 47 pages!



hence business benefits….

All these need collaboration

hence business benefits….(the DTI view)

reduced risk

enhanced brand values

open doors

create goodwill

improve staff efficiency and morale

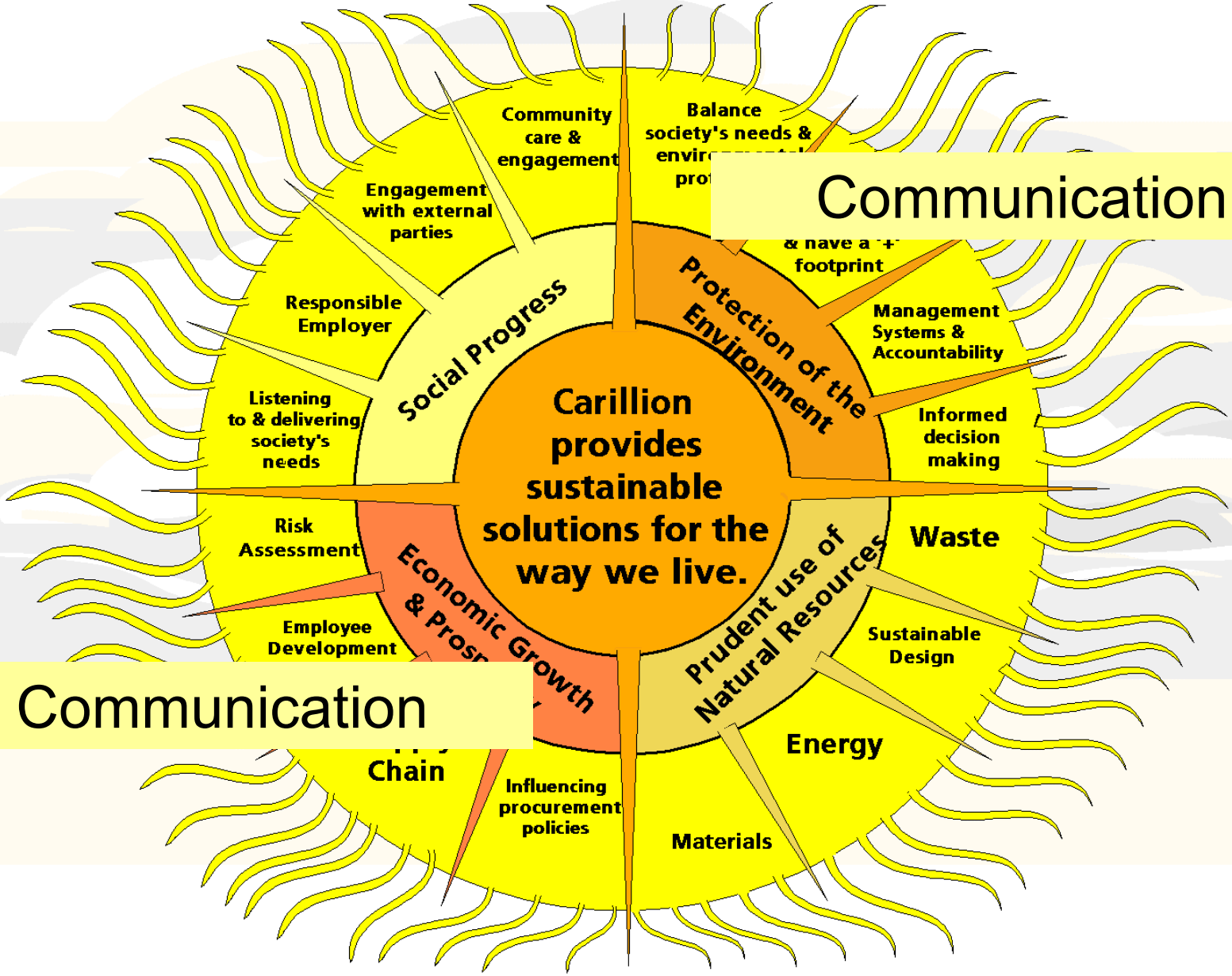
add competitive edge

and deliver the overall goal of:

Sustainable Development

for our future, our business, all people & the planet

These are BIG business drivers for Carillion


Carillion provides sustainable solutions for the way we live.
Social Progress
Protection of the Environment
Economic Growth & Prosp
Prudent use of Natural Resources
Community care & engagement
Balance society's needs &
& have a
footprint
Engagement with external parties
Responsible Employer
Management Systems & Accountability
Listening to & delivering society's needs
Informed decision making
Risk Assessment
Waste
Employee Development
Sustainable Design
Chain
Influencing procurement policies
Energy
Materials
Communication
Communication

as engineers and scientists, we now need to deliver all these

Carillion's Sustainability Strategy - Policy

The Carillion sustainability policy

"Carillion provides sustainable solutions for the way we live.

We will achieve this by:

- Sharing our vision and policy with all
- Turn our vision into reality by embedding sustainability into everything that we do
- Measuring and verifying our progress
- Promoting our vision as an instrument for change"

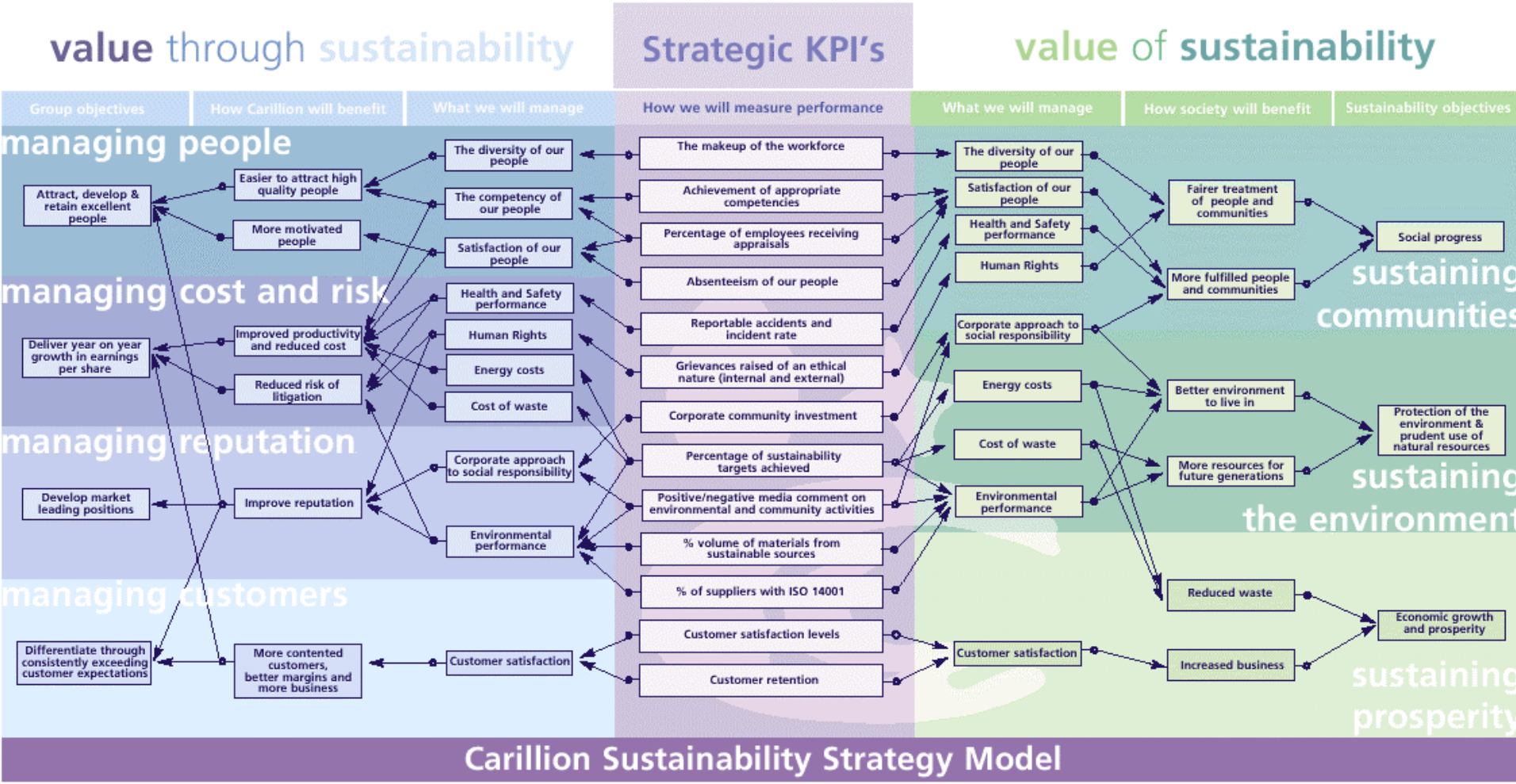
KPI's and business strategy

Introduction to the Carillion model

Do your KPI's really help you to drive the business?

- good practice and good ideas and goodness knows
- chose from hundreds to select 59 in 2001
- map KPI's against what we do and business objectives
- select and use strategic ones more effectively
- rest were business specific, reporting, consolidated or deleted

Then establish relevant targets, based on KPI's



Sustainability Report 2001

This strategy model has delivered

in UK

in NZ?

Business understand this, but perhaps not the link between being sustainable and being a sustainable business

The Great Western Hospital,Swindon

Princess Margaret Hospital relocation project

The Team

- Andy Brown, then Paul Dempster, Project Manager
- Ian Rothwell, Design Manager
- Jas Dhami, Initiatives Manager and Coordinator

- The Natural Step..energise, enthuse and tools

Project Design Parameters

Prior to TNS involvement in Project

- Flexibility for future use
- Maximum repetition throughout the design
- Maximum re use of excavated material (stabilisation)
- Elimination of external scaffolding
- Minimise labour intensive Trades (wet trades)
- Maximum prefabrication opportunities

The Swindon Project and TNS

- Asked to volunteer to be the 2nd Carillon pathfinder project
  - Not another initiative !
  - Don’t they realise we’ve got a hospital to build

- Kicked off with 2 one day workshops, involving all the team including designers and came up with our Sustainability Action Plan (SAP).

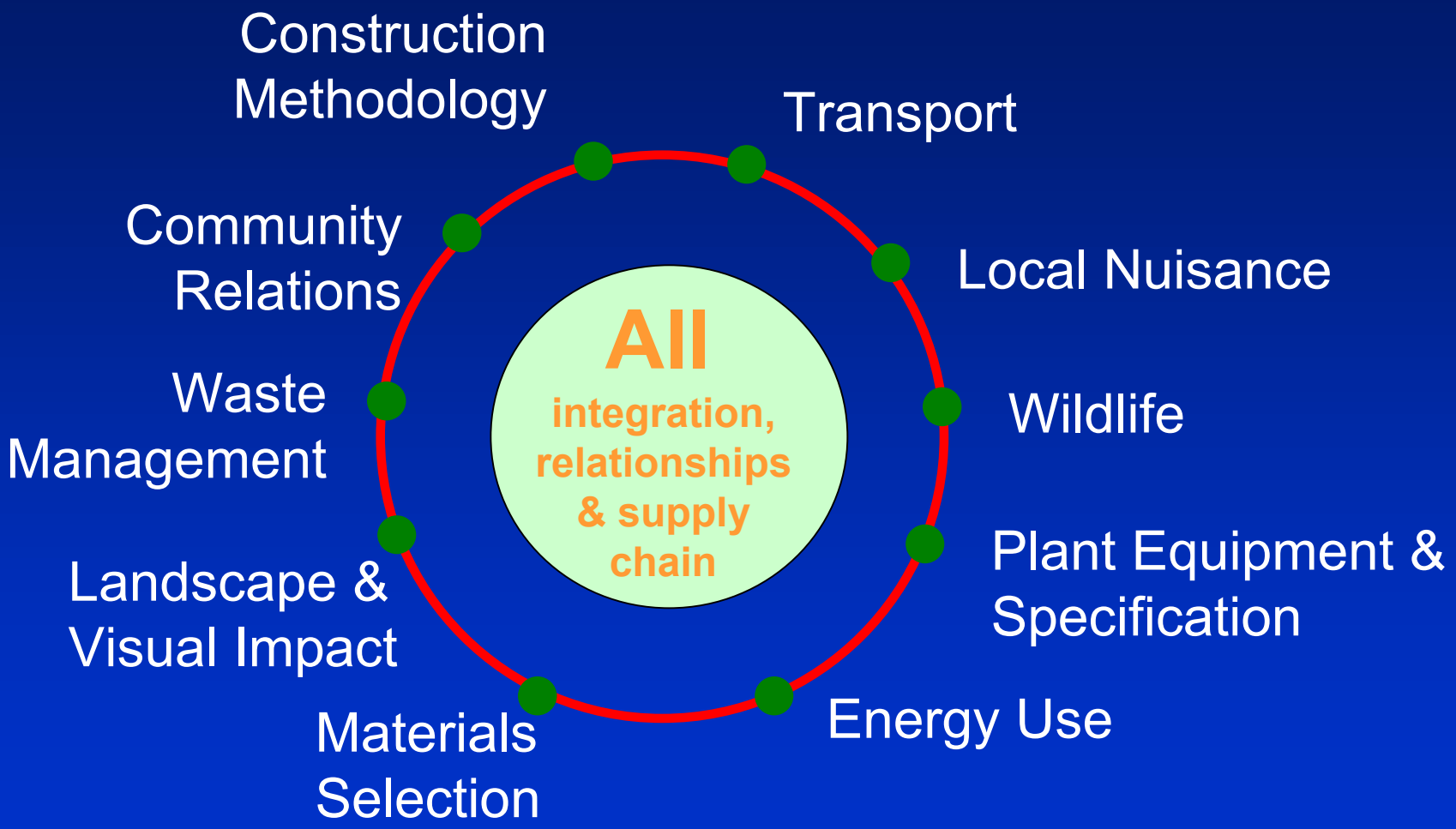
  Comments after were:
  - Haven’t we started too late to make a difference
  - It’s only common sense after all !
  - I went home and had a meaningful conversation with my daughter about the environment for the first time

Following the workshop

- Enthusiasm was clearly evident
- Sustainability Action Plan (SAP) included
  - Organic tomatoes grown in plantrooms
  - Grass on roof with sheep as lawnmower

- So the SAP was rationalised (February 99) removing the unrealistic items for a future projects & generations

The Swindon Sustainability Action Plan



Construction Examples From SAP

- Established a Habitat Management Plan
  - Confronted issues from potential opposition groups
  - Avoided more quick fix solutions
- Developed a Green Transport Policy
  - Highlighted potential action points
  - Trade contractors sharing lorries
  - Car sharing encouraged
- Set waste targets and monitor performance
  - Target reduction by design
  - Reuse wherever possible
  - Segregation of waste by trade contractors for maximum recycling

Construction Examples cont'd

- Use of local labour and Trade Contractors
  - Greater buy in on larger projects
  - Generally more flexible
- Involvement of local community
  - Good PR opportunities
  - Greater level of support from local groups
- Quality welfare facilities
  - Respect for operatives
  - Demand quality in return
- Greater safety awareness leading to lower accident frequency
  - Accidents are the greatest waste of all

Lots of “wins” at Swindon

Waste example

- 50% target reduction from our best practice Dartford project (2500t waste)
- 500 tonnes timber composted or recycled….. supply chain involvement
- 400 tonnes paper and cardboard
- Compost added to topsoil
- Saving approx. £124k
- Just over 1200 tonnes removed to landfill….. rubbish in ..rubbish out
- 300 tonnes concrete recycled
- needed buy in from all the supply chain to achieve this

Success at the University of Hertfordshire

“approach to sustainability made the difference”

- 1600 student en-suite residences
- 60% More efficient that current building regulations
- £150k capital costs (0.2% of total)
- Over £3 Million in Energy Savings in 25 years
- Over 40,000 tonnes of CO_2 abated
- Equivalent of 10,000 miles per year for each student in private car

- better thinking and planning up front

…and at Oxford… KPI led!

What do we expect from others?

- Embrace sustainability, to raise their performance and our performance
  - we know this can be done
  - we know the benefits all of us can realise
  - we want to develop longer term relationships
- Ask for help
  - we did
- Share tools
  - we do… the strategy model is being used by others
  - we put tool box talks and case records and all our strategy and policies on the web

Where to next?

- gap analysis showed we need:
  - "proper" stakeholder engagement….. (incl. AA1000)
  - community policy…. in progress, but late!
  - broader communications strategy…. with CSR & sustainability at the core
- more training and education…. competency based
- more work on supply chain…. seconded Jas to TNS
- market the product **"sustainability"…** internally and externally….published our framework and business delivery plan for 2004
- use as a business differentiator… and win more work!

Carillion framework

carillion

Our Sustainability Strategy Framework

Turning our sustainability policy into reality and measuring the benefits to Carillion and all its shareholders

Sustainability Policy — Step 1

Carillion provides sustainable solutions for the way we live.

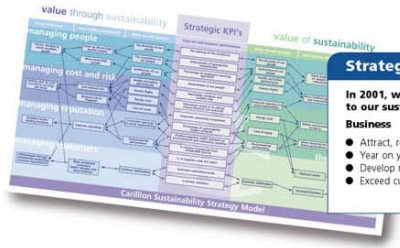
We will achieve this by:

- Sharing our vision and policy with all
- Turning our vision into reality by embedding sustainability into everything we do
- Measuring and verifying progress
- Promoting our vision as an instrument of change

Business impact — Step 2

We identify our business impacts under the Government's four headline objectives for sustainable development.

- Protection of the environment
- Prudent use of natural resources
- Social progress
- Economic growth and prosperity



Strategy model — Step 3

In 2001, we developed a model that links our business objectives to our sustainability objectives

Business

- Attract, retain and develop excellent people
- Year on year earnings growth
- Develop market leading positions
- Exceed customer expectations

Sustainability

- Social progress
- Protection of the environment
- Prudent use of natural resources
- Economic growth and prosperity

Communication and Training

2003/2004 — Step 4

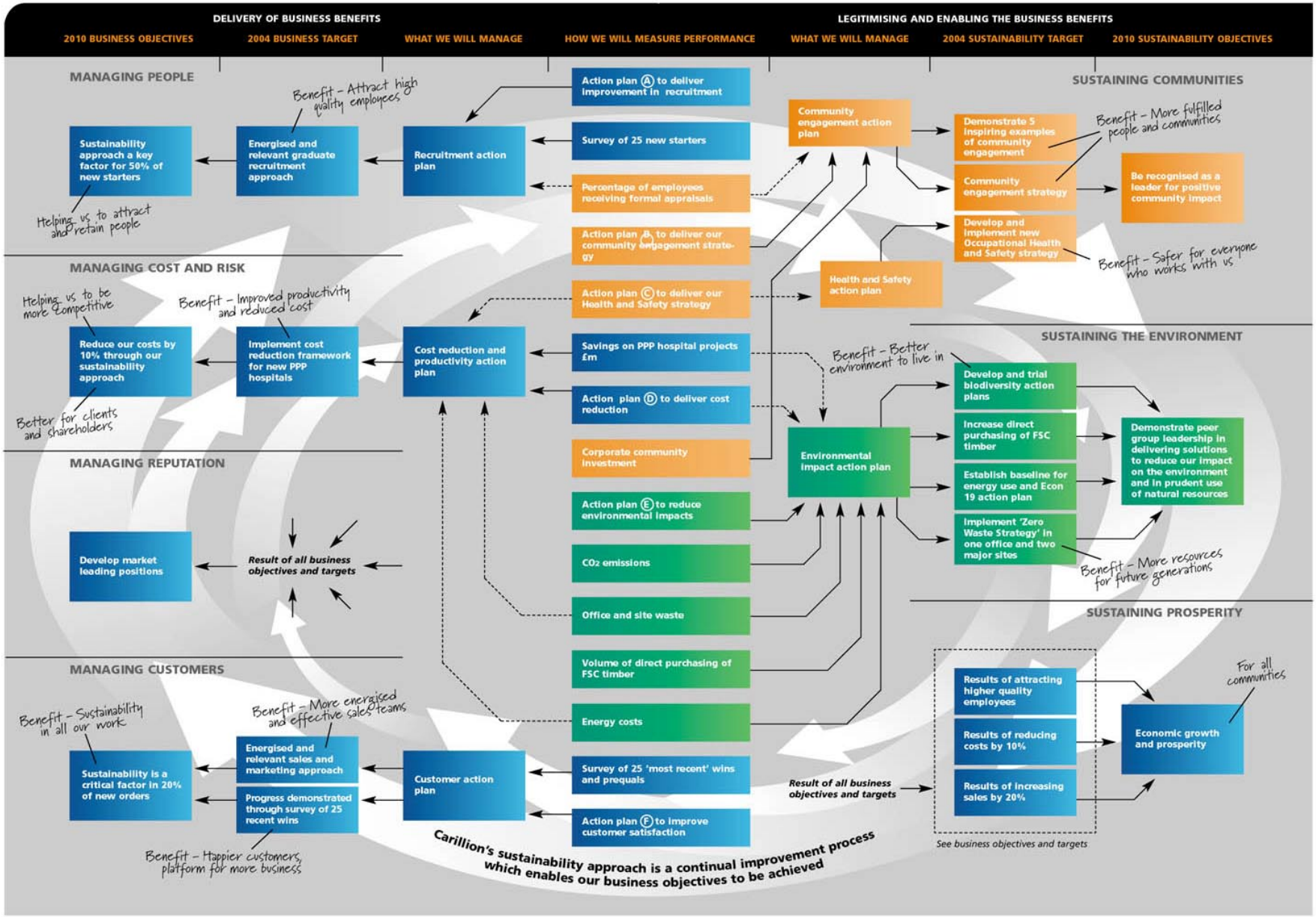
In 2003, we developed the model and focused on four key areas of implementation

- People development – competency and satisfaction **A**
- Health and Safety – behaviour, design, occupational health and accident investigation **C**
- Environment – design, waste and energy **E**
- Customer satisfaction **F**

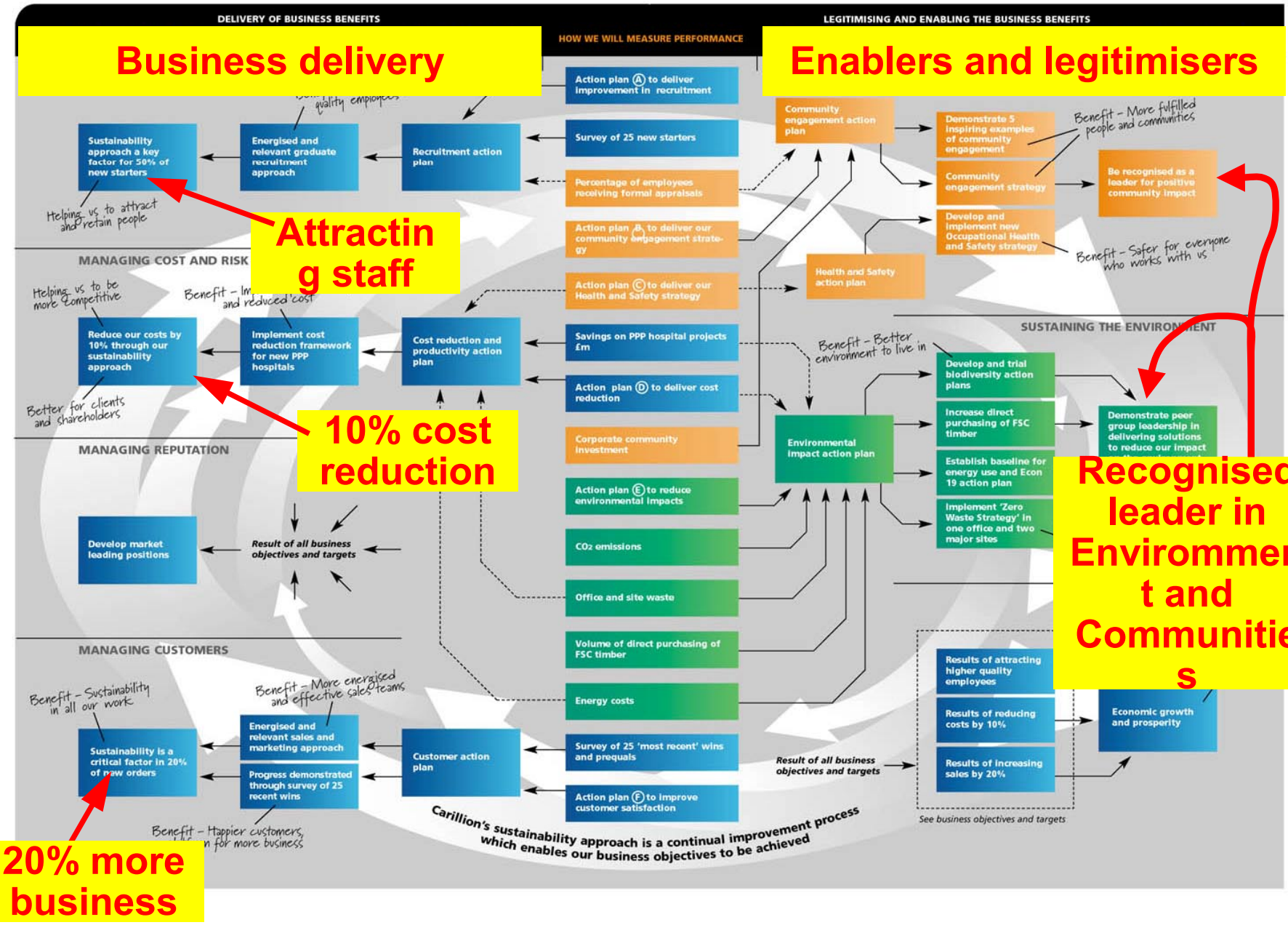
In 2004, we are further enhancing people development and Health and Safety and adding two more focus areas

- Community engagement strategy **B**
- Managing cost and risk **D**

Action Plans



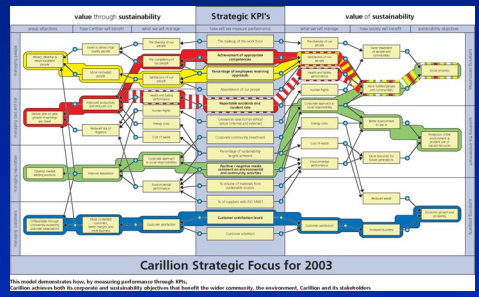
2004 to 2010 business delivery

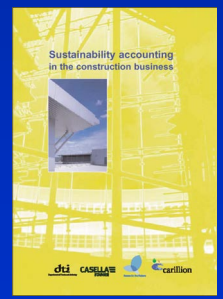


2004 to 2010 business delivery

What about our impact on Society?

- we are recognising our impacts better AND acting and reporting on them
- we are concentrating on
  - our people
  - local communities
  - our customers
  - our supply chain
- more work on supply chain.. seconded Jas to TNS
- our targets align with sustainability AND our business strategy





BUSINESS *in the*
COMMUNITY

awards for excellence
2003

Carillion plc

Example of Excellence
for

Impact on Society Award

HRH The Prince of Wales
President, Business in the Community

FT

with assurance by Accountability

dti
Department of Trade and Industry

All on the web

- Sustainability: http://www.carillionplc.com/sustainability
- 2003 report: www.carillionplc.com/sustain-2003/index.htm
- Strategy and models: www.carillionplc.com/sustain-2003/programme/a1_3_1_our_vision_and_strategy.htm

- QL et al paper, published by the Institution of Civil Engineers in *Engineering Sustainability* journal, issue 1, March 2003: http://www.carillionplc.com/sustain-2002/documents/pdf/sustainability%20strategy%20paper.pdf

Conclusions

- it is a journey….. so make a start
- there will be difficulties….. so seek help.. we used TNS, Jonathon Porritt and others….and continue to do so
- in the heart we know it is right…….we need to demonstrate that it is right for our business too
- and….if it is right….it needs to be part of what we do, not a bolt on…..so sustainability has to be integrated with everything we do..
- as engineers and scientists, **we** have the pivotal role and must **influence** others

So……what are you going to do tomorrow?