

KTP Office

Research and Innovation Service



UNIVERSITY OF LEEDS

CGI International Limited

Robert Whiting



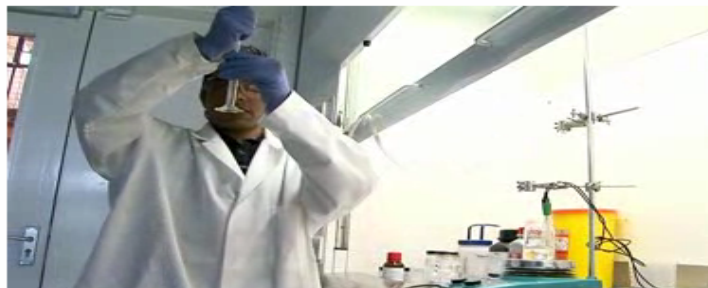
Fire Glass Solutions

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PYROGUARD: FIRE GLASS SOLUTIONS



Focused exclusively on **fire glass** and fire resistant glass, CGI International supports architects, specifiers, contractors and clients in navigating the complexities of fire safety legislation – providing fully tested glazing solutions that are backed by an expert fire glass technical team.

Operating solely in the fire glass market, CGI International understands the challenges associated with building regulation compliance and can support with the correct specification of Pyroguard fire glass solutions which meet the **required standards** – without compromising on design quality.

Applications and tests selector

Fire resistance	Trade name	Type of frame	Application	Max width x height (mm)	Max area(m ²)	Thick-ness(mm)	Impact test
EW 30	Pyroguard EW 30	soft wood	screen	3125x1008	2.52	7	3B3
EW 30	Pyroguard EW 30 Impact	soft wood	screen	3125x1008	2.52	7	3B3

Orientation	<input checked="" type="radio"/> Vertical	<input checked="" type="radio"/> Horizontal (Floor and ceiling)		
Classification	<input type="radio"/> E	<input type="radio"/> EI		
Duration	<input type="radio"/> 30	<input type="radio"/> 60	<input type="radio"/> 90	<input type="radio"/> 120
Frame	<input type="radio"/> Steel	<input type="radio"/> Timber	<input type="radio"/> Aluminium	

- ▶ Glass Classification
- ▶ Fire Glass Projects
- ▶ Our Partners
- ▶ Fire Glass Solutions
- ▶ Technical Information
- ▶ Licensed Partners
- ▶ CPD Seminars

CE Marking became mandatory on 1st July 2013

Not CE marking yet?

If you are not already signed up and licensed then you need to be. You could have been trading illegally for ...

DAYS **267**

HOURS **13** MINS **11** SECS **03**

Contact **Trevor Crossley** to make an appointment.
CE Marking and Licencing

Certification

- ▶ CF257 - Pyroguard
- ▶ CF581 - Pyrostem



Fire Glass Solutions

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PRODUCT RANGE

The CGI Group's primary objective is to make buildings safer through the development of the **Pyroguard** and **Pyroguard T** product brands, for a wide range of construction applications.

Find out more about **Glass Classification**

Pyroguard

- ▶ Pyroguard EW 30 Maxi: the largest tested size of laminated fire products
- ▶ Pyroguard EW 30: 7 mm thickness UV stable for internal and external applications
- ▶ Pyroguard EW 30 Impact: the only UV stable 7 mm thickness with 2B2 impact
- ▶ Pyroguard EW 30: easy to cut, no taping needed

The success and the reputation of our Pyroguard EW30 product, in the countries where we operate, is due to continuous investments in operations and people.

Pyroguard Product Range

Pyroguard T

- ▶ An extensive range of Fire Glass, stretching from E30 to E120 (with numerous EW options)
- ▶ An extensive range of test certificates in different frames: wood, steel and IGU's
- ▶ Some of the largest tested sizes available on the market
- ▶ Applications of double-glazed units: float glass, layered glass, toughened glass and laminated glass

Pyroguard T Product Range

Our technical and R&D teams are committed to continuously improving the quality of our products and are developing new systems which are regularly tested and externally certified at approved laboratories.

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DAYS **267**
HOURS **13** MINS **19** SECS **26**

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CE Marking and Licencing

Certification

- ▶ CF257 - Pyroguard
- ▶ CF581 - Pyrostem
- ▶ CF437 - Pyroguard Insulation

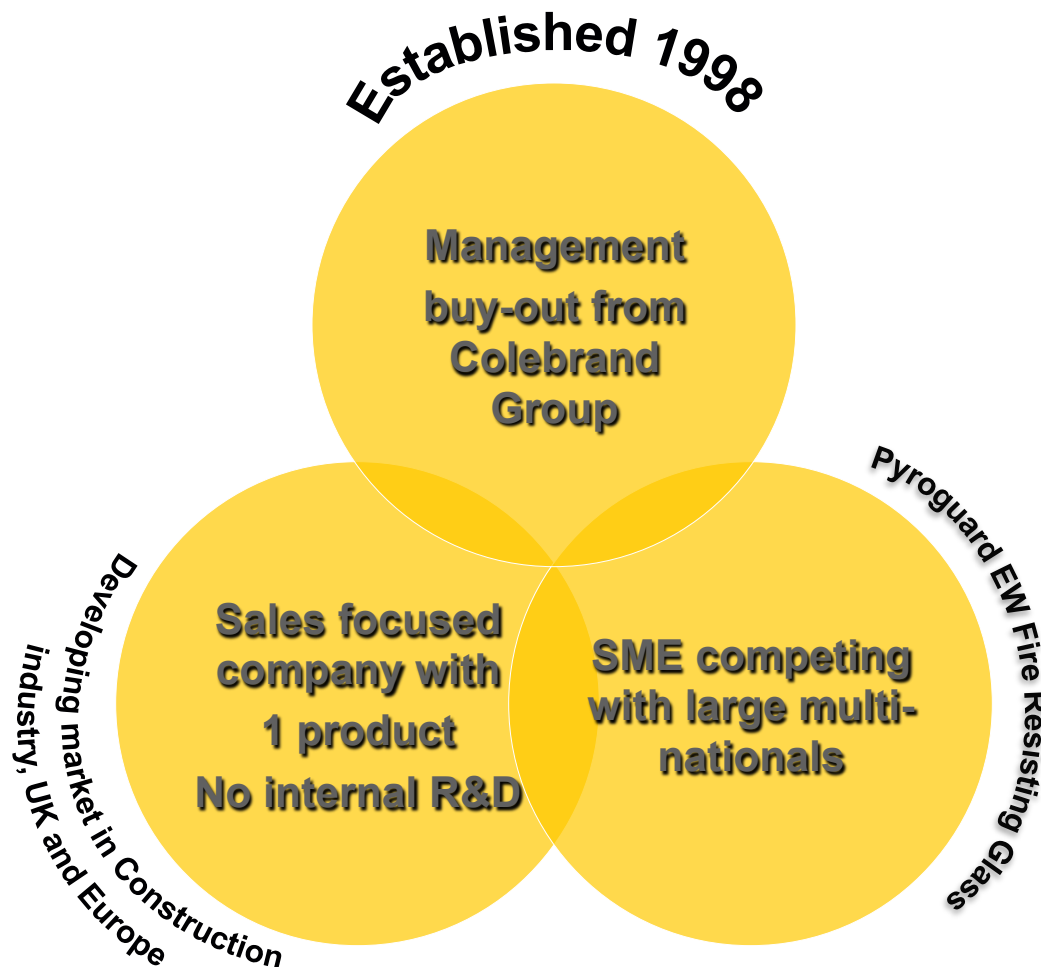
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A Knowledge Transfer Partnership (KTP) between CGI and the University of Leeds

A 3 year KTP was approved:

“to understand and map the polymer chemistry of fire resisting glasses and use this knowledge to enhance their performance and to develop new products”

Academics involved:

Dr Roth Phylaktou (Fire & Explosions)



Professor Jim Guthrie (Chemistry)

Associate recruited:

Dr Vince Crook

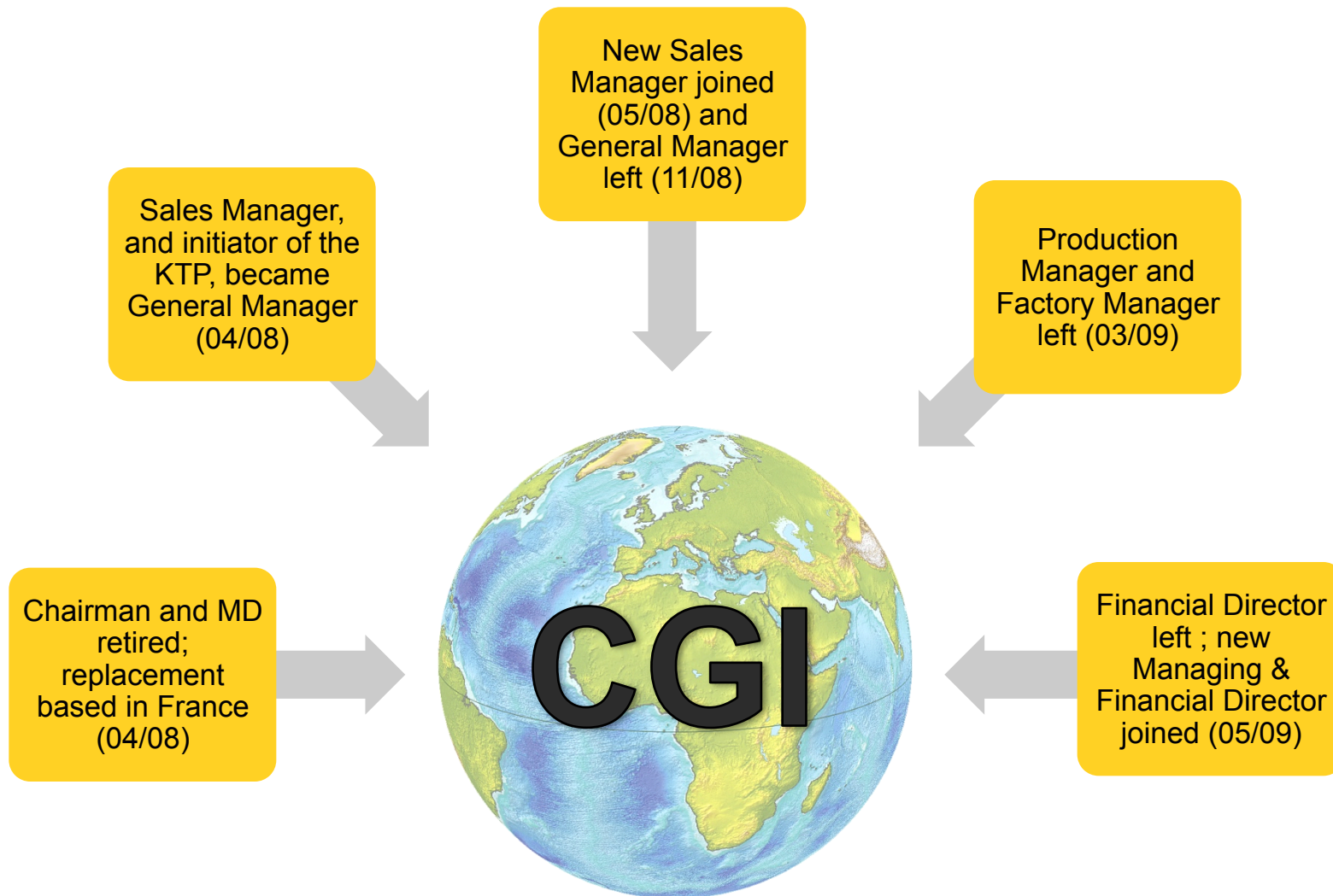




Everything started well...

...until 2008/09 when the CGI world began to change

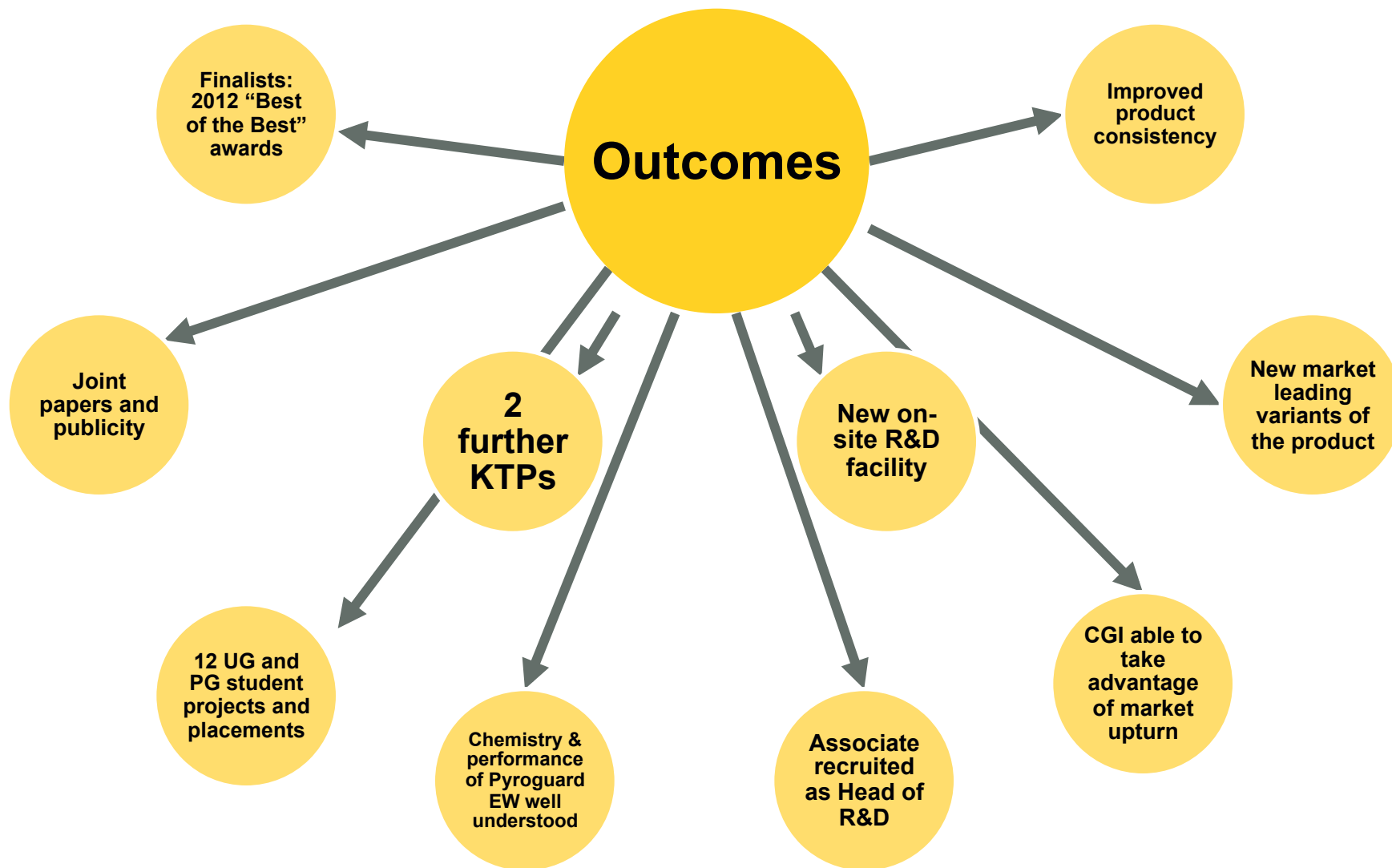






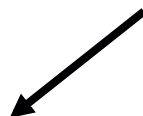
**The construction industry in
Europe virtually collapsed**

*“CGI to be regarded in future by
the outside world as a
technically led company
selling innovative solutions to the
fire engineering problems faced by
the construction industry”*



2 new KTPs!

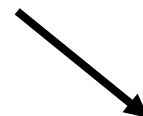
Areas identified:



Manufacturing

- Improve quality and consistency in manufacture
- Enable production of larger sizes
- Ensure consistent product quality
- Reduce costs

“To review and understand fire resistant glass manufacturing and quality issues and model and implement improvements”



New Product Development

- Replace bought-in EI product
- Produce innovative, proprietary product
- Enable both market and profit growth

“To understand the science underpinning the performance of silicate based intumescent and current fire insulating glasses and to develop an innovative, proprietary product”

Manufacturing KTP

**2 year
project**

**Associate:
Masters in
Chem Eng**

**Academic:
Dr Harvey
Thompson
School of
Mech Eng**

Aims

- Understand product quality issues
- Automatic process monitoring
- Improved manufacturing process
- New product quality system
- Enhance knowledge base

Manufacturing KTP



“KTPs provide an excellent mechanism for **harnessing a technical knowledge resource**

far beyond the scope of an SME to solve issues where the intervention of “big brains” and new ideas are required.

“Associates are commonly **highly skilled and motivated** and can thrive in this partnership environment”

Dr Vince Crook

Product Development KTP

**3 year
project**

**Associate:
PhD in
Polymer
Science**

**Academic:
Prof. Jim
Guthrie,
School of
Chemistry**

Aims

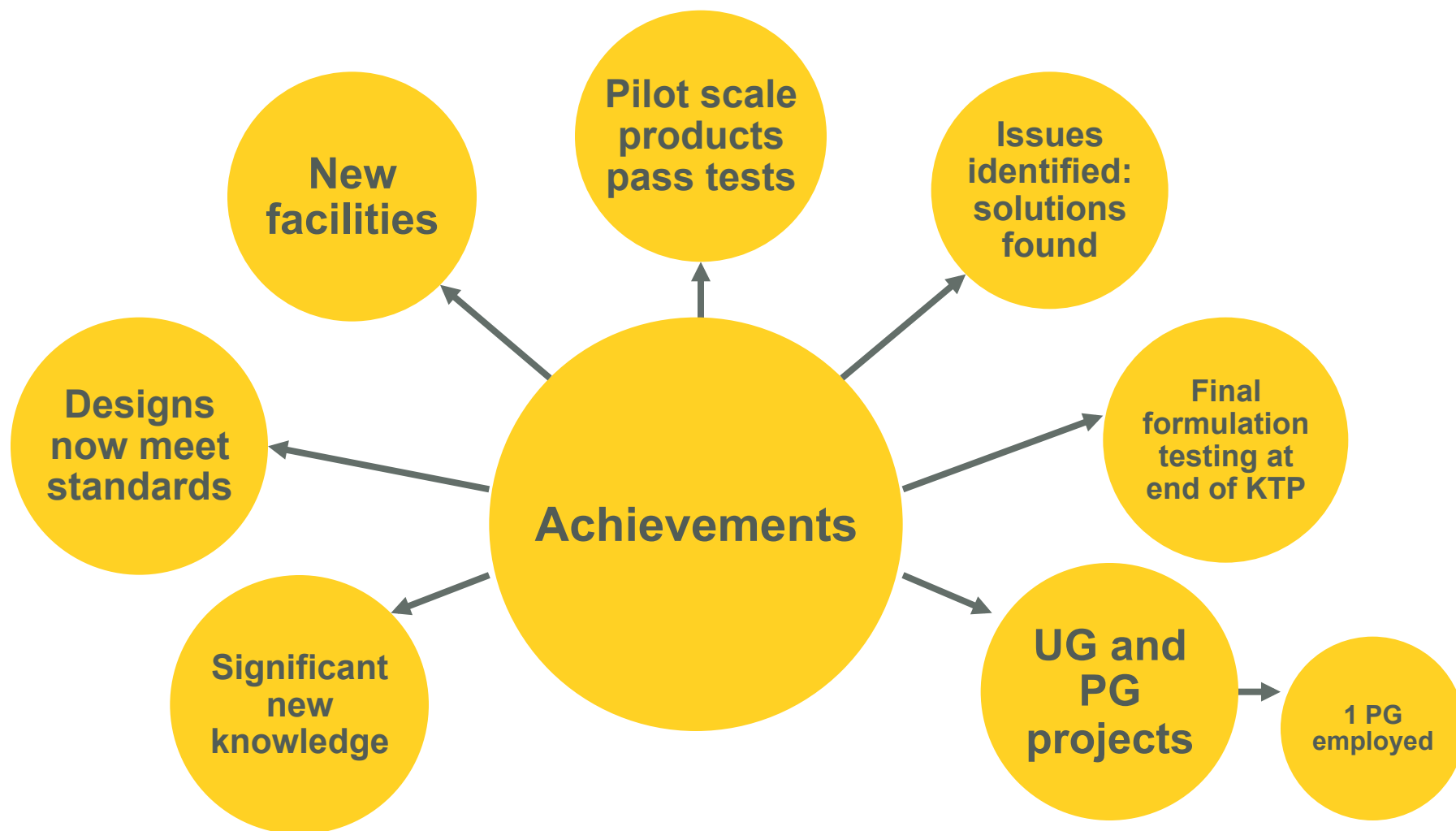
• Develop new systems

• Reduce market
vulnerability

• Produce new products

• Significantly reduce
manufacturing costs

Product Development KTP



“The KTP programme has delivered again for CGI. Our progress has been **accelerated way beyond what could be achieved outside of the programme**. We were able to attract an extremely talented chemist and build a technical team of enthusiastic contributors from both the University and Industry. It is likely that **without the focus that the KTP framework creates** the project may have run aground at any of the many technical hurdles that were encountered. CGI are now investing heavily to commercialise the outcome”

Dr Vince Crook

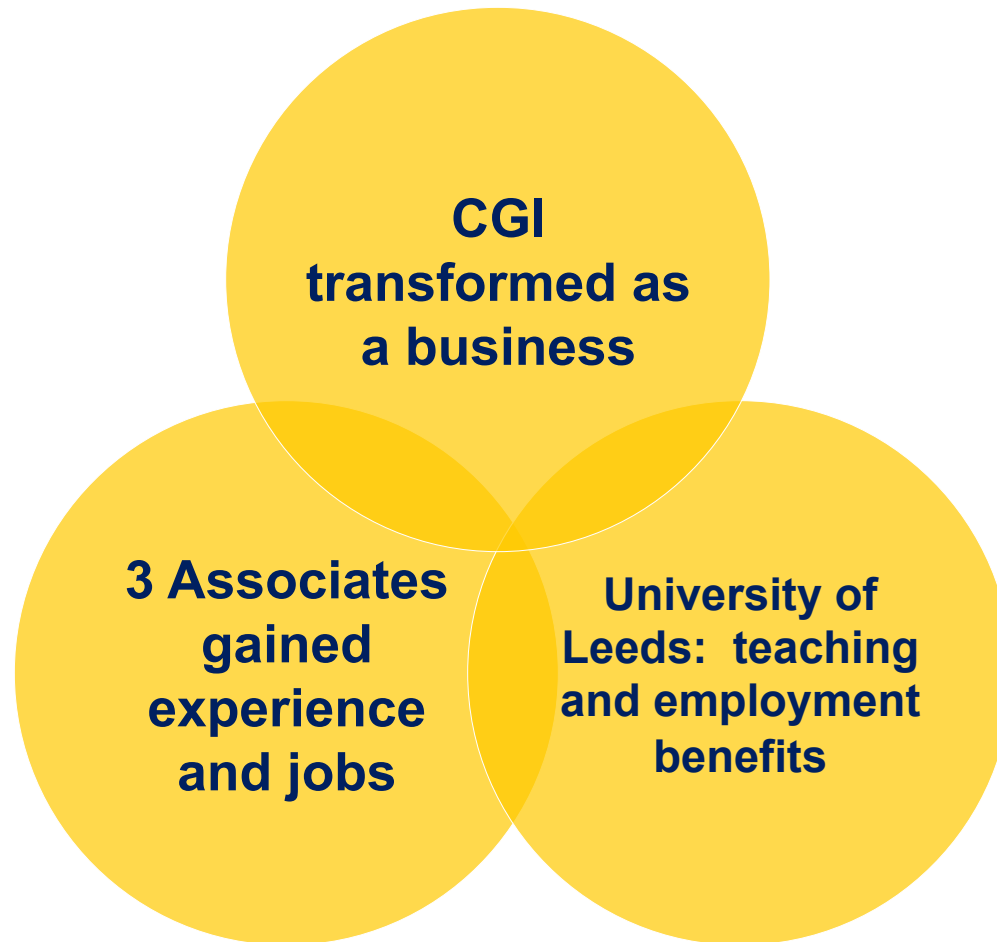
“The extent of **cross-fertilisation of concepts**,
interpretations and ideas **between the industrial and
academic team members**,

counselled by the **KTP Office** and **KTP Adviser**, has
been great –

leading to opportunities for the **development of people**,
research and the potential for further collaboration”

Prof. Jim Guthrie

In summary...



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Research and Innovation Service



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<http://www.leeds.ac.uk/ktp>

Knowledge Transfer Partnerships

<http://www.ktponline.org.uk/>



Knowledge
Transfer
Partnerships

Technology Strategy Board
Driving Innovation

investing
in **your** future
European Regional Development Fund
European Union

