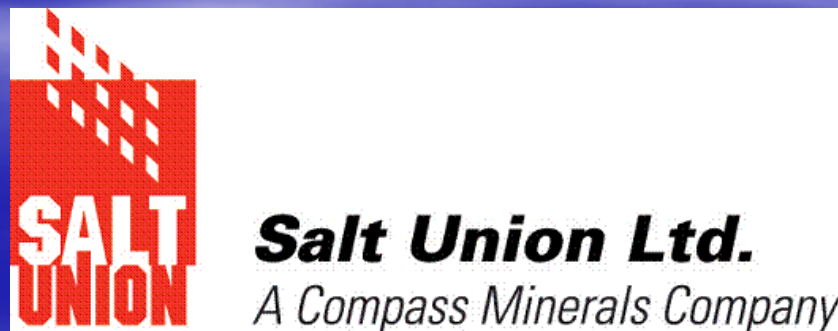


# Outcomes and Benefits of a Knowledge Transfer Partnership in Chemical Science

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# Outline of Presentation

- Introduction
- Description of KTP Programme
- Results - Outcomes and Benefits
- One Year on
- Conclusions

# Introduction

- Academia-Industry Collaboration
- Knowledge Transfer Partnership (KTP)

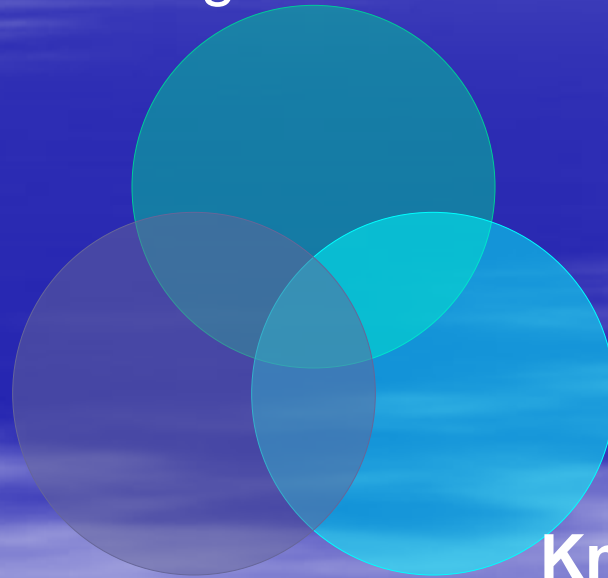
# Academia-Industry Collaboration

- Important to improving economies of countries
- Range of schemes are used worldwide
- Results in improvements in competitiveness for companies and research in academia respectively
- Knowledge Transfer Partnership (KTP) has been running in the UK since 1975

# Knowledge Transfer Partnership

## Associate

Well Qualified Graduate  
with Management Potential



## Company Partner

Looking for Opportunity  
to Stimulate and Enhance  
Business

## Knowledge Base Partner

Provides Relevant Research  
and Skills

# Knowledge Transfer Partnership

**Associate**  
PhD Chemist



**Company Partner**  
Salt Union Limited

**Knowledge Base Partner**  
Liverpool John Moores  
University

# Company Partner Salt Union Limited



- Main business is the supply of rock salt (sodium chloride) products for the winter maintenance of highways
- Company wanted to improve existing products and also develop new products for the future

# Company Partner Salt Union Limited



- Salt Union has large amounts of rock salt deposits for mining
- Rock salt is mined, treated and delivered to customers for storage



# Company Partner Salt Union Limited



- Customers apply the products as required to highways during adverse winter weather conditions

# KTP Programme -Expectations

- The company had started to offer a premium product (with additives) to the market with enhanced de-icing performance and corrosion inhibition effects.
- Company wished to develop the product, explore alternative additives and embed product development capability
- Two academic staff with expertise in different areas of Chemistry looking for development opportunity
- Associate was a PhD Organic Chemistry looking to develop the potential for a management role.

# KTP Programme -Management

- Academic staff spent 10% of time working on the project
- Day-to-Day mentoring by industrial supervisor
- **Weekly** meetings and **monthly** meetings to review progress
- Formal meetings every 4 months in the presence of a facilitator

# KTP Programme -Management

- Progress with deadlines to achieve deliverables and objectives was rigorously monitored
- Benefits to all three parties was monitored and documented
- Programme was influenced by commercial and business factors

# Results

- Successful KTP involves benefits to all parties involved
- Company Partner Benefits
- Associate Benefits
- Knowledge Base Partner Benefits
- Academic Staff Benefits

# Major Benefits for Company Partner

## OUTCOMES

- Research Capability
- Better understanding of the product
- Increased Product Sales
- Recruitment of Trained Manager

## BENEFITS

- Development of products
- Improved information to customer
- Increased profit margins
- Knowledge of business and products

# Major Benefits for Associate

## OUTCOMES

- Employment with the company partner
- Qualifications in Management
- Industrial experience gained
- Networking opportunities

## BENEFITS

- Management role within profitable group of companies
- Broader skills base
- Enhanced Career opportunities
- Increased knowledge and business opportunities

# Major Benefits for Knowledge Base Partner

## OUTCOMES

- Purchase of new equipment
- Research income
- First completed KTP in the school

## BENEFITS

- Improved research facilities
- Enhanced reputation in RAE
- Raised awareness of KTP



# Major Benefits for Academic Staff

## OUTCOMES

- Fostered new research partnership
- Publications
- Funding for PhD
- Improved understanding of industry and IP
- Brought industrial relevance to teaching

## BENEFITS

- Developed new academic knowledge in new and existing areas
- Improved academic profile
- Research Development
- Potential to engage with other knowledge transfer projects
- Enhanced learning and opportunities for students

# Summer Placement Project



Some of the KTP team pictured with one of the undergraduate students on a summer placement at Salt Union

# One Year On

- Sales of treated salt have continued to grow during the last two years
- Former Associate has been appointed Technical Development Manager for the Compass Minerals Group
- Enabled successful launch of treated salt products in the US and Canada
- Academic staff now jointly supervise a PhD student

# Conclusions

- Programme delivered planned objectives and was awarded a Grade B (very good)
- Company has increased profits, sales of premium product and R&D
- Former Associate has gained excellent experience and training (and employment)
- Academic staff have developed their research profile

# Acknowledgements

- UK Technology Strategy Board/Salt Union for opportunity and funding
- Salt Union : Harold James
- Ex-Salt Union : Alan Sheen, Kay Monaghan
- KTP Administration Unit (LJMU) :