WAL™

GLOBAL CENTRE FOR
WORK-APPLIED LEARNING

PIONEERING WORK-APPLIED LEARNING

ALARA

ACTION LEARNING, ACTION RESEARCH
ASSOCIATION INC.

LEARNING *for* CHANGE AND INNOVATION

WORLD CONGRESS

7-9 NOVEMBER 2016 ADELAIDE, SOUTH AUSTRALIA

CONGRESS SUPPORTERS

AUSTRALIAN
INSTITUTE
of BUSINESS

the practical business school

Leeds Trinity
University

Collaborative action learning for the transition to advanced manufacturing

Bob Cother and Genevieve Cother
The Action Learning Institute

Questions

1. How do you measure the quality and effectiveness of Work Applied Learning?

- For the organisation?

- For the individual?

2. Does the Australian Qualifications framework provide an adequate basis for assessing the outcomes of Work Applied Learning?

- For the organisation?

- For the individual?

What is BALT?

- **Business Action Learning Tasmania (BALT)** is an un-incorporated industry-based interest group.

- BALT's objective is to support self-reliant industry development with diverse companies cooperating to improve their profitability, develop their people and grow the Tasmanian economy.
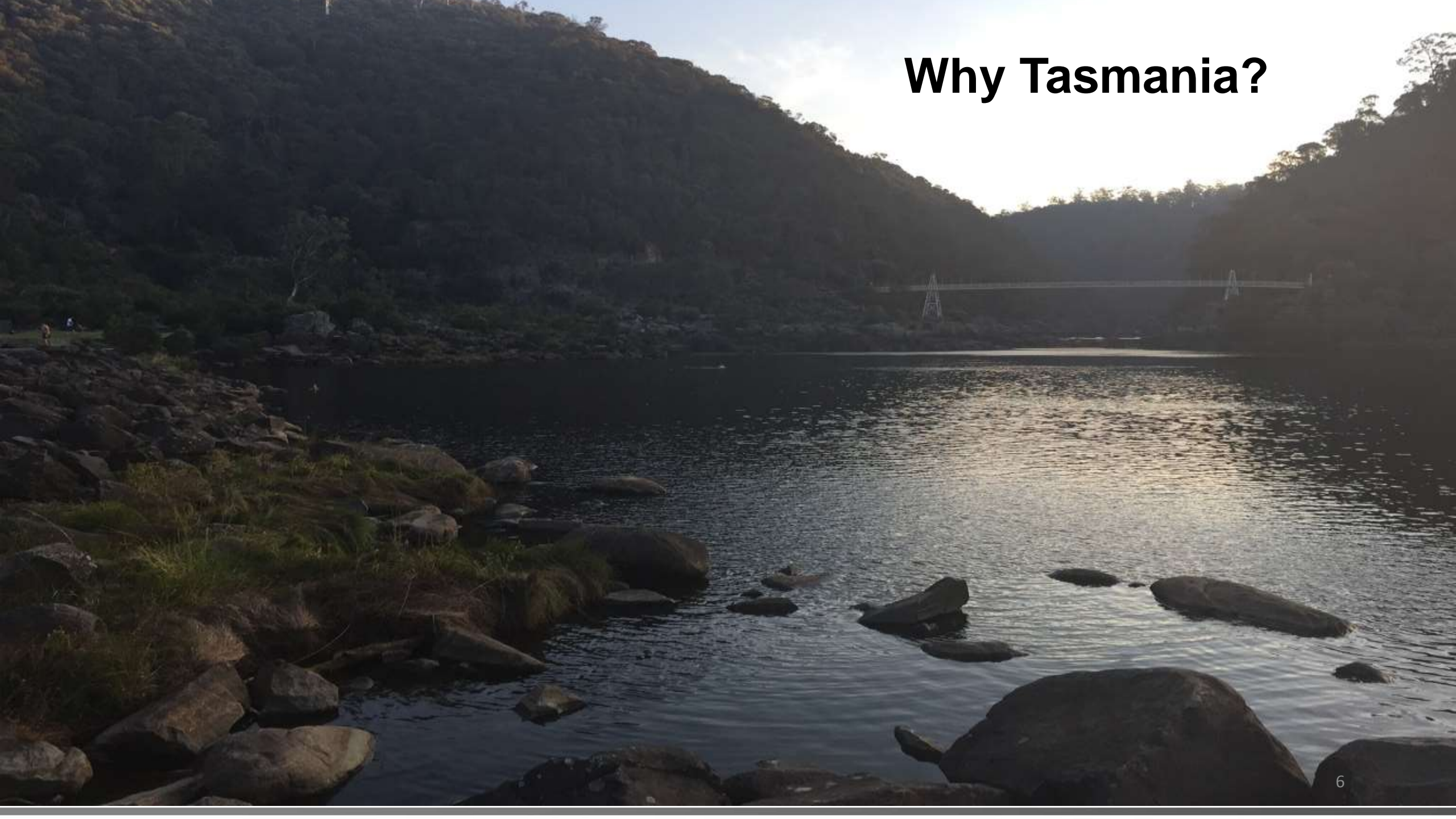
What is BALT?

BALT is built on three pillars:

1. collaborative action learning,

2. achieving important business outcomes, and

3. the awarding of nationally recognised qualifications.

This is achieved through running programs to implement real business improvement projects with groups of local companies.

Why Tasmania?

The Action Learning Institute

- The Action Learning Institute is a Registered Training Organisation, Provider No. 40676, under the National Vocational Education and Training Regulator Act 2011.

- Based in Adelaide, the Institute is now also located in Launceston.

- The Institute has been delivering nationally recognised qualifications in partnership with BALT since 2010.

We plan, facilitate and support action learning programs within and across industry sectors to enhance the performance of participating organisations, develop and assess the competencies of their people, and advance the learning economies of the regions in which they operate.

Lean Action Learning Program

- Enable companies to learn with and from each other by tackling projects of vital importance using action learning

- Demonstrate the application of Lean principles across the supply chain

- Disseminate the learnings

South Australia 2006 to 2010

- 13 projects

- 28 companies

- 54 participants

- Teams of 4 or 5 people

  o Two or three from the host company

  o The remainder from other companies

  o Five one-day workshops

  o Implementation over 6 to 9 months

Australian Qualifications Framework

- Encompasses both Vocational Education and Training (VET) and University Qualifications

- VET sector:

  - 1,625 nationally recognised qualifications

  - 82 training packages

  - 12 industry skills councils (ISCs)

Typical Training Package

- Specify the skills and knowledge required to perform effectively in the workplace

- Do not prescribe how a learner should be trained

- Three components:

  - Units of competency

  - Qualifications (groups of Units)

  - Assessment guidelines

- Certificate I to Graduate Diploma levels

Delivery and Regulation

- Must be a Registered Training Organisation with relevant qualification on scope

  - 5,000 RTOs, 75% private

- Regulated by Australian Skills Quality Authority (ASQA)

Cert IV Competitive Systems & Practices

- The skills needed to improve efficiency in a team or work area

- These skills are known in industry as Lean manufacturing, agile manufacturing, Lean operations, six sigma, Lean six sigma etc

- Targeted at team leaders, support specialists, middle managers

The Tasmanian Delivery Model

- Model validated with reference to South Australian outcomes
- 3 companies per program
- Each company in turn hosts a project
- Each project team consist of participants from all three companies
- Each individual is in two project teams; one 'home' and one 'away'
- Home team members lead the implementation at their company

Program evaluation

For the individual participant:

- Demonstrated skills in action learning across two projects

- Demonstrated competency against the performance criteria in the Units of Competency in the nationally recognised qualification

Program evaluation

For participating companies:

- Measurable improvement in business performance, using established project objectives and targets as documented in the Project Specification

- Participation of employees in a project at another company

- Successful awarding of qualifications to participating employees

- Quantitative and qualitative data from Participant and Employer surveys, to determine perceived effectiveness of action learning

Program evaluation

For the State of Tasmania

- The successful completion of the program with stated objectives met for individual participants and participating companies

- Documented recommendations and strategy established for future programs based on the findings from the evaluation process

How does a BALT program work?

- A BALT program typically involves three companies undertaking one project each

- Each company nominates a project and three people to participate in the program

- Two of the nominated people participate in their 'home' company project and one of the other projects

- The third person only participates in their 'home' project

- This allows for a team of five for each project

Project selection criteria

- Must address an issue of high priority to the company

- Likely to benefit from 'fresh eyes'

- Potential to demonstrate competitive systems and practices

- Likely to achieve a tangible outcome in the time available

- Fits with the competencies defined in the identified qualification (or Skills Set)

- Company willing for outcomes to be used as a case study (within reason)

The Advisory Panel

The role of the Advisory Panel is to:

- Build communications and collaboration between companies participating in the program

- Forge links that will endure beyond the duration of the program

- Contribute to program development

- Participate in the selection of projects and project teams

- Ensure that the program objectives and timelines are met

- Participate in assessment validation

- Lend support by attending and promoting program events

- Provide feedback for program evaluation

How a program runs

Eight stages:

1. Recruit companies and secure funding
2. Select and specify projects
3. Plan project delivery
4. Launch program
5. Launch project
6. Conduct Five Day Workshop Series
7. Implement Action Plan
8. Present and document outcomes

Review forum

'Home' teams present their project outcomes and personal learnings

Review forum

The forum is attended by senior management of all three
companies, together with other stakeholders.

Bell Bay Aluminium/Kempe Engineering

Cathode tail project involving Bell Bay Aluminium, Kempe Engineering, Tasmanian Alkaloids and TasRail

Bell Bay Aluminium/Kempe Engineering

Objectives:

- Develop and implement a sustainable and cost effective manufacturing process for the manufacture of 9B type reduction cell collector bar tails for Bell Bay Aluminium

- Identify possible methods for converting old tails to new design tails

- Develop a cost effective recycling process for used 9B collector bar tails

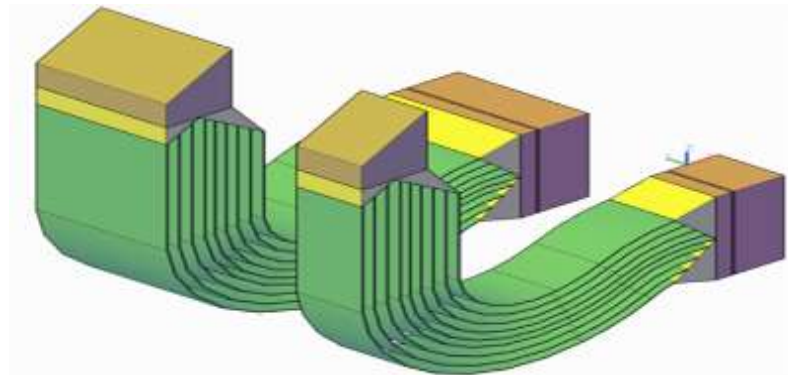# Bell Bay Aluminium/Kempe Engineering

Key areas:

- To produce a competitive priced product against current overseas supplier

- To produce a product that is equal or superior in performance than imported equivalent, ie. electrical performance, tail lifespan (ability to be recycled), and ergonomics

Bell Bay Aluminium/Kempe Engineering

Business outcomes:

- Cost targets met through reduced labour time, improved processing at BBA, increased refurbishing rate, recycling of Type 6 material and the development of Manufacturing Cell Design

- New concept has improved electrical performance - ongoing mV savings per annum of approx. $40,000+ per year

- New manufacturing cell design reduces manual handling issues due to reduced movement, mobile equipment use and ease of welding to collector bar

- Personnel and skill base retained in Tasmania

- Reduced CO_2 emissions due to recycling

Bell Bay Aluminium/Kempe Engineering

Existing Type 6 tail

Proposed Chinese 9B Tail

New Concept recycled Type 6 Tail Design

Petuna

Order fulfillment project involving Petuna, Harvest Moon and Direct Edge Manufacturing

Petuna

Objectives:

- Identify areas for improvement

- Reduction in Frozen WIP

- Improve Production Planning

- Remove 'business silos' and improve communication

- Improve customer complaint management

- Accountability for cross departmental responsibilities

- Integrated Systems

Petuna

Outcomes reported:

- Frozen WIP maintained at a planned level
- An integrated planning tool developed
- Regular team meetings occurring between various stakeholders
- Production and staff allocation planned more efficiently
- A customer complaint process documented for use by sales and QA departments
- Roles and responsibilities template developed for use by departments in future process reviews
- Clever use of data integration, with the new planning tool and other integrated features complementing investment in systems in the business

Harvest Moon

Onion Crop Profile and Processing Cost Reduction involving Harvest Moon, Direct Edge Manufacturing and Petuna Seafoods

Harvest Moon

Objectives:

- Analyse the characteristics sought by Harvest Moon's onion customer base

- Produce a target crop profile

- Examine the value chain for the onion production system identifying ways to improve its efficiency and effectiveness

- Install new packaging equipment and reconfigure the processing, grading and packing line in order to improve the efficiency and effectiveness of the line

Harvest Moon

Key areas:

- Crop Profile Strategy
- Crop Sampling
- Onion Line Operation
- Prepack Location
- Packing Cell Design
- Grading and Waste
- Cool Store Energy Use

Harvest Moon

Outcomes reported:

- Crop profile is aligned with customer demand
- Knowledge retained in-house to change the profile if required
- Improved ability to pick crops and balance the line to meet customer expectations and efficiency targets
- 5-10% improvement in labour productivity from new Packing Cell design
- Maintenance involved in equipment redesign

Harvest Moon

Outcomes reported (cont.):

- SOPs produced for itinerant employees
- Product boards used for communication between management and staff
- Trials found sizing and grading onions before storage provided 10-20% extra storage space
- New field methods of sun screening has allowed better bin fill rates at harvest
- Quality information during crop sampling allows selection of appropriate crops to be stored (better outturn rates)

TasRail

Locomotive Maintenance Project involving TasRail, Bell Bay Aluminium, Kempe Engineering and Tasmanian Alkaloids

TasRail

Objectives:

- Supply the required number of TasRail locomotives to Freight Services when required

- Minimise downtime of TasRail locomotive fleet for scheduled maintenance

Key areas:

- Time taken to lock on and off

- Loco Release from Operations to Maintenance

- Lost time Accumulating Service Parts and Consumables

- Work environment and availability of services, equipment and relevant documents

- Duplication of service tasks

- Lack of skills-based training

TasRail

Outcomes reported:

- Improved locomotive availability for increased revenue

- Reduced out of service time from 4 days to 3 days for "B" Service

- Implementation of 5S throughout the workshop

- Freed up time for maintainers to participate and work on ways to continuously improve practice

- Improved open communication between different stakeholders

- LED pit lighting 30% cheaper to run and maintain and improved work environment for maintainers

- With time saved, maintainers are able to participate in training and fixed plant maintenance

Future aspirations
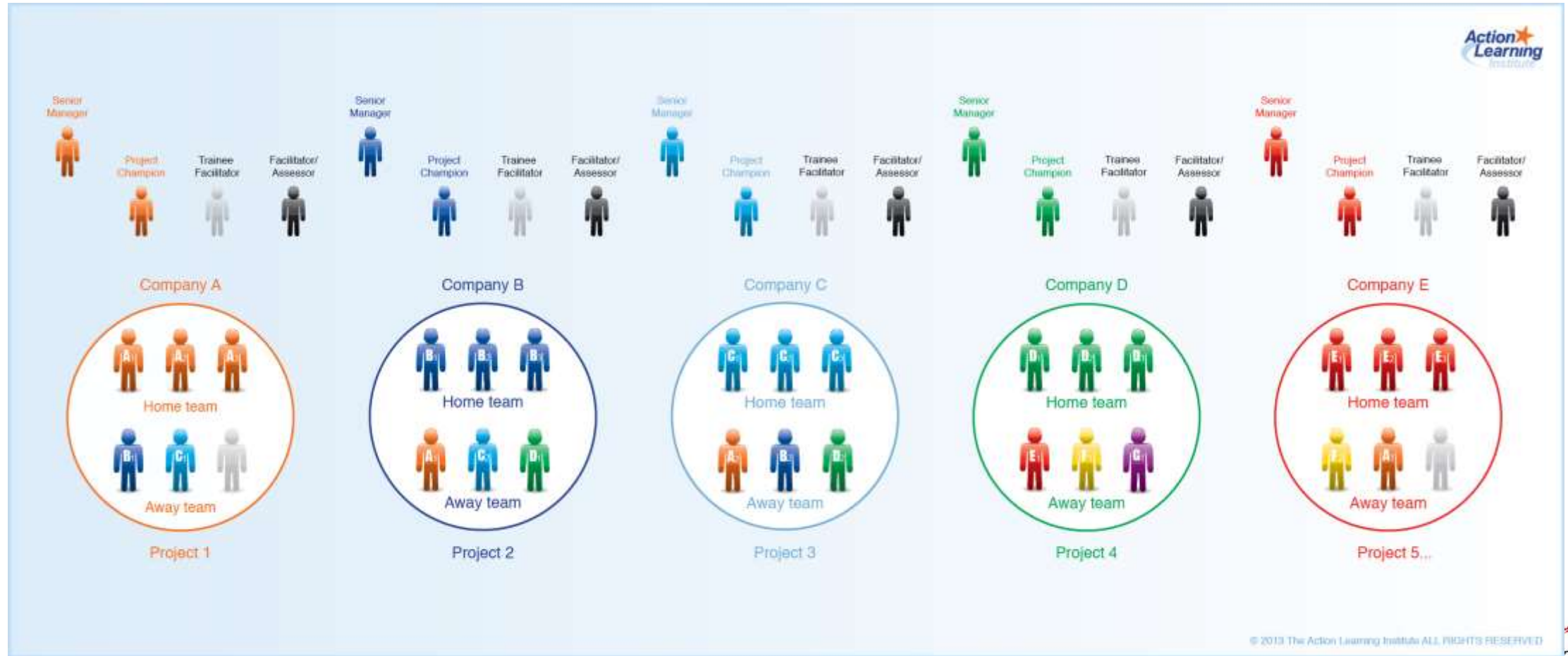
ALEx

- Establish an Action Learning Exchange (ALEx), combining both face-to-face and online components.

- Use ALEx as a vehicle to work with companies in the existing BALT cohort to determine strategies to learn with and from each other on common problems or opportunities.

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Conclusion

- Questions?

- Comments?

More information:

businessactionlearningtas.com