Intellectual Capital for Communities
in the Knowledge Economy
Nations, Regions, Cities and Emerging Communities

WORLD BANK INSTITUTE
Promoting knowledge and learning for a better world

World Conference on Intellectual Capital for Communities
- Fourth Edition -

Managing knowledge in the context of mergers acquisitions.

The case of **RIO TINTO ALCAN**

Guy-Michel Raynaud - Director-Process Technology and Networks
Caroline Hérault - HR project Leader
**Gwenaelle Grefe** – KM Project leader

Rio Tinto Alcan Engineered Products

World Conference on Intellectual Capital for Communities
- Fourth Edition -

Table of content

- **Rio Tinto Alcan**
- **Engineered Products**
- **Managing knowledge in the context of mergers acquisitions**
- **Managing knowledge at Engineered products : History and background**
- **Engineered Products technology networks**
- **The Engineered products approach**
- **Technology Networks: an enabler for Operational excellence and Growth programs through AIMS**
- **Technology networks : knowledge sharing process**
- **How Engineered Products Technology Networks works**
- **Zoom on the EP Technet forum : why a forum ?**
- **First learning two years after ; guiding principles, difficulties**
- **Next steps**

Rio Tinto Alcan's global presence
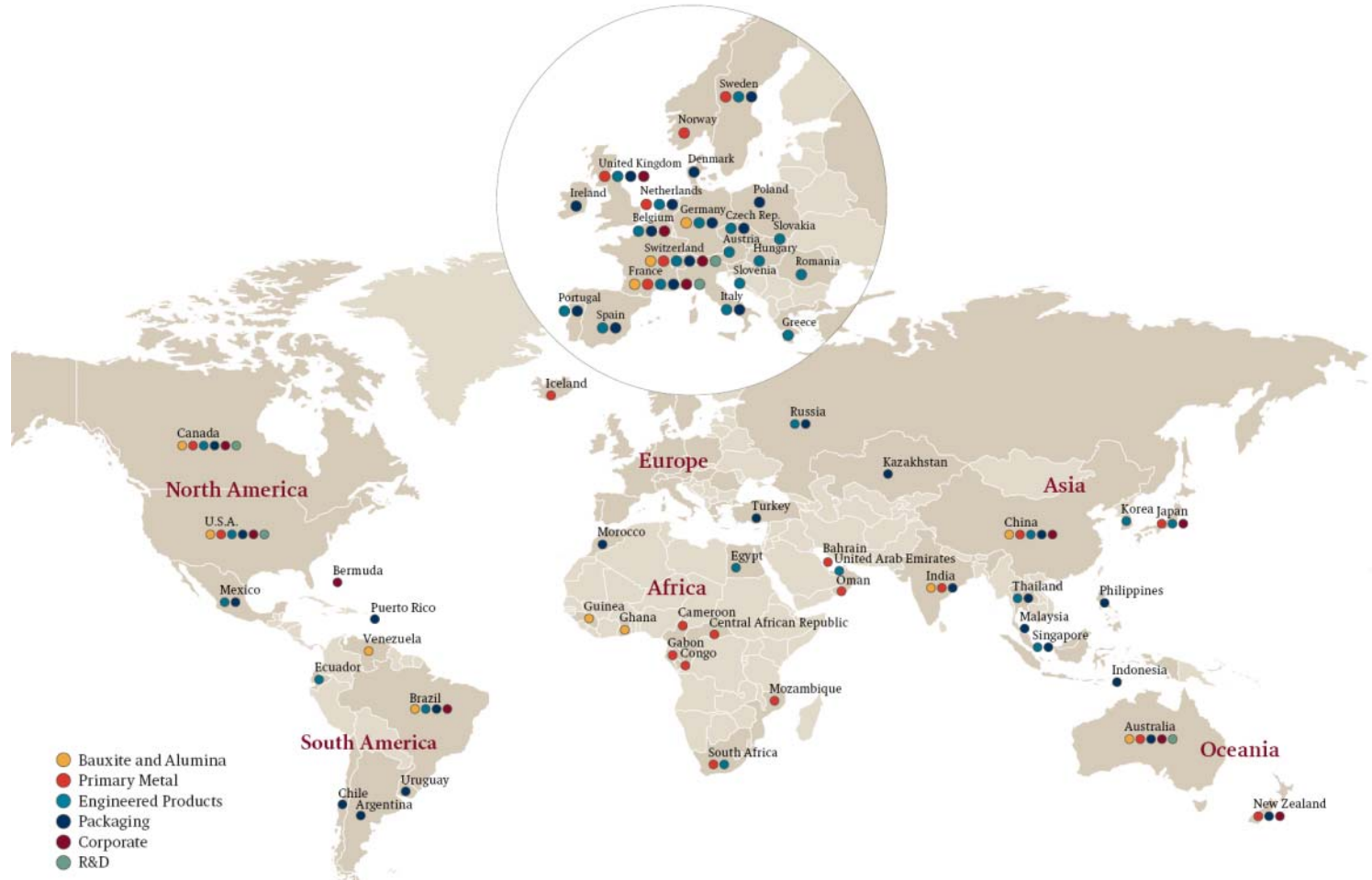
Rio Tinto Alcan
Four Business Groups

Number 1 in aluminum, based on current production

World's second largest supplier of aluminum aerospace products ; Number 1 in Europe

Europe's number 1 supplier of large extrusions

Recognized worldwide for its commitment to environment, health, safety, local communities and sustainable development

BAUXITE AND ALUMINA

Over 6,000 employees in 10 countries

PRIMARY METAL

19,400 employees in 21 countries and regions

ENGINEERED PRODUCTS*

15,000 employees in 31 countries and regions

PACKAGING*

31,000 employees in 31 countries and regions

Business to be divested

Engineered products a platform for growth

Aerospace, Transport & Industry

Composites

Cable
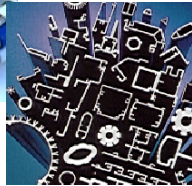
Extruded Products

Speciality Sheet

Automotive Structures

Alcan International Network

7 Business Units (B.U)

1 Research center / 2 labs
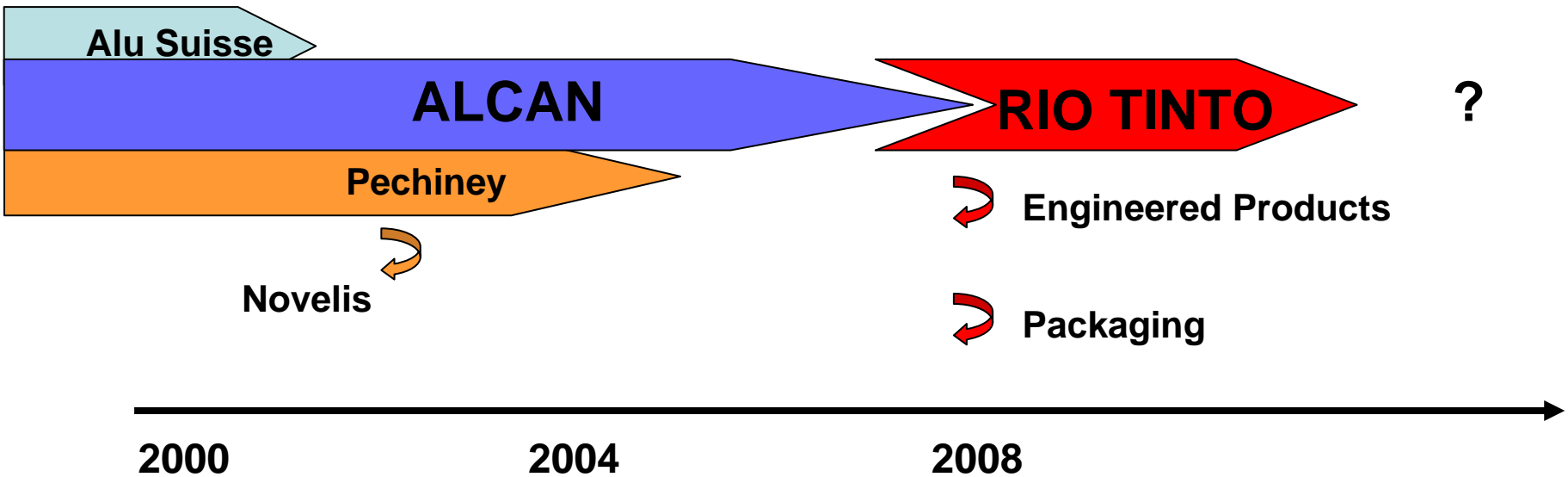
15,000 employees in 31 countries and regions

90 production facilities

Managing knowledge in the context of mergers acquisitions

Alu Suisse

ALCAN

RIO TINTO

?

Pechiney

Engineered Products

Novelis

Packaging

2000   **2004**   **2008**

Managing knowledge at Engineered products : History and background (1/2)

- **2 KM entries from previous Alcan, AluSuisse and Pechiney and time :**

  - **Capitalization, from the production's side : 2000 / 2003**
    - **Based on an old preoccupation of formalizing expertise and experiences ; several KM experiences :**
      - **With operational engineers (book of knowledge, Community of practices)**
      - **With operators or technical resources (technical trainings)**

  - **Technical Directors yearly meetings**

Managing knowledge at Engineered products : History and background (2/2)

- **In 2005 KM new spur : Alcan's take over (2 years to be built)**
  - **New organizational pattern : more sites with knowledge to share (industrial synergies) + necessity to link experts across different Business Units**
  - **Overall context : innovation is key for a competitive company**
  - **Alcan management system (AIMS)**

- **EP priorities : AIMS, Growth, Operational excellence**

- **New EP context : developing / demonstrating its own technical culture**

Engineered Products Technology networks

- **In 2006, Christel Bories the EP CEO, gave to the Technology and Innovation department a new mandate :**

    > Establish networks for best practice sharing and driving implementation to achieve operational excellence in EP technologies through best in class performance

    > Identified technologies are: casting, rolling, finishing, extrusion and recycling including the aspects of energy efficiency and environmental performance

    > These "Technology Networks" will constitute key enablers for the EP priorities programs and also form the basis for talent management and knowledge management in these technologies

The EP approach : tying KM, Talent Management and technical training

5 axes to succeed :

First Per Business Unit (B.U.)

- 1) Competency mapping

Then Cross B.U.

- 2) Organize and pilot Talent Management (skills group)

- 3) Create the conditions to solve the technical problems cross B.U.

- 4) Manage Technical Networks and Communities of practice

- 5) Implement technical training according to development paths

Through AIMS

Technology Network: an enabler for Operational excellence and Growth programs through AIMS

Value-Based Management
How we allocate capital

Continuous Improvement
Fine-tuning our key processes

EHS FIRST
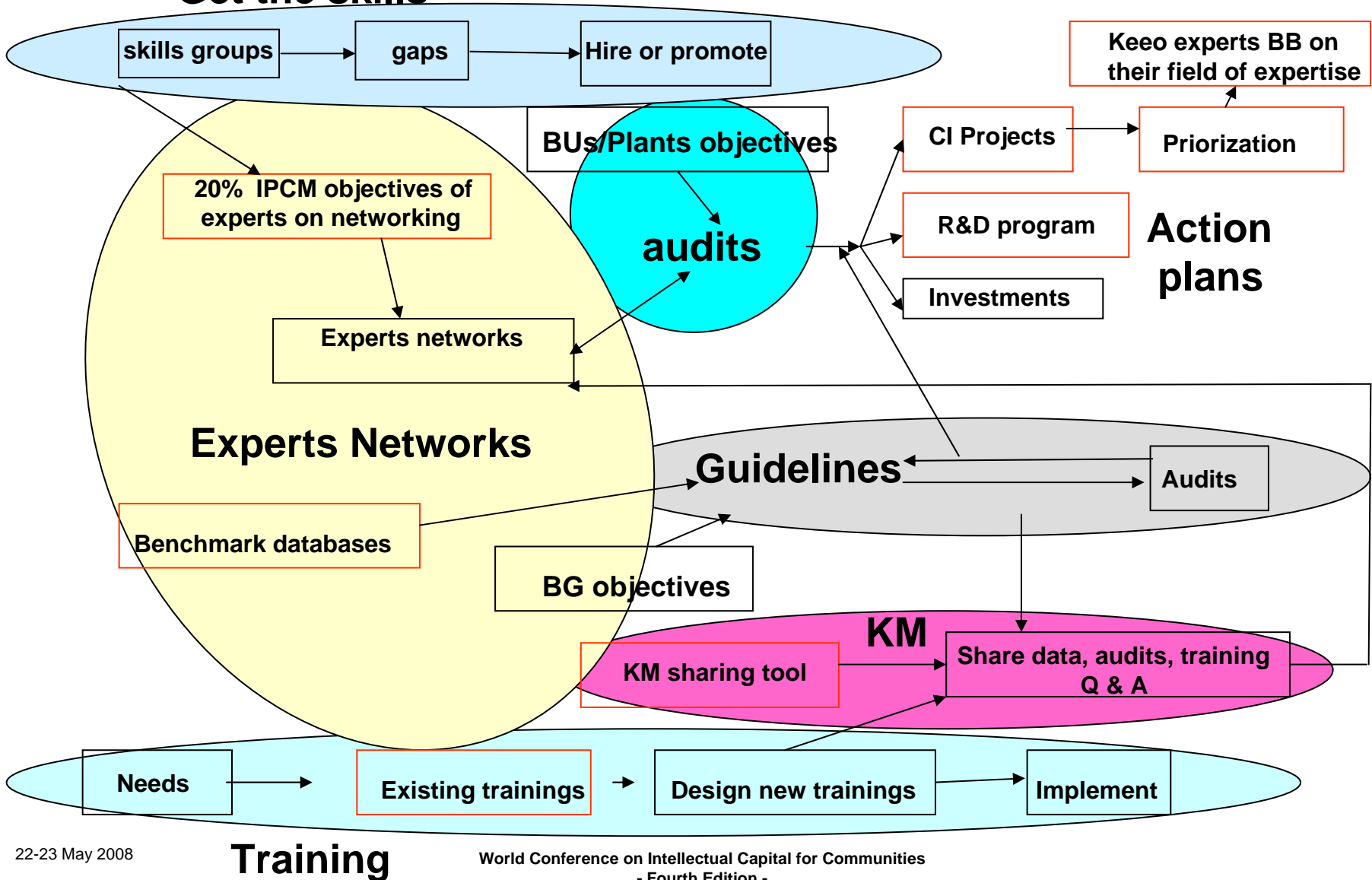**Striving for health, safety and environmental excellence**

Alcan People Advantage
Engaging our employees

EP Technology Networks: knowledge sharing process

Get the skills

skills groups → gaps → Hire or promote

Keeo experts BB on their field of expertise

BUs/Plants objectives

CI Projects → Priorization

audits

R&D program

Action plans

Investments

20% IPCM objectives of experts on networking

Experts networks

Experts Networks

Guidelines ← Audits

Benchmark databases

BG objectives

KM

KM sharing tool → **Share data, audits, training Q & A**

Needs → Existing trainings → Design new trainings → Implement

Training

How EP Technology Network works

- **The EP Technets are led by "Technology and Innovation" Department**

- **Establishes a set of standard rules to be adopted by each TN :**
  - **Organization : one leader, a 10 experts core team, 2 yearly meetings, quarterly conf calls,**
  - **interaction through a forum with questions/answers system, publications, yellow pages open to every technical people (276 engineers and searchers)**
  - **Communication : Newsletter, portal, meetings minutes, status report (action plan follow-up), KPI**

- **Means : a KM tool (forum), sponsorship of BG upper management + local (plants) management.**
- **Goals and practices : "Audits" (process workshop and mini workshop), work groups , REX, BP sharing, Quick Wins..**

Zoom on EP Technet forum : why a forum?

- **provided to the Technets members to promote and support their knowledge exchanges. 2 major functionalities :**
  - **Directories of skills (yellow pages) by skills or contacts**
    - **How can I find an expert on a certain topic?**
  - **Questions / answers system**
    - **People who need help, advices, information on a topic can automatically ask a question to the right persons. The question will be sent to the people declared as experts on this topic.**

- **This is also a way to capitalize and secure information and knowledge into a single, safe source.**
  - **Knowledge database built with :**
    - **Publications : members can post relevant documentation**
    - **Questions : once they are answered and closed, they become a publication**
      - **When a simple mail will be lost, and limited to some ''happy fews'', a question will be saved and can be consulted next time**
      - **This implies that members will use the Forum (and not the mail) each time they need to communicate on a technical issue / topic.**

First learning – 2 years after
Guiding principles - Difficulties

- **Business first, difficult to find time to exchange**
- **Forget yesterday and tomorrow……. Not that easy!**
- **Difficult to build a culture of sharing when the organizational culture is changing (post and next mergers context)**
- **Culture of Sharing : give and give-back principles difficult to set up**
- **TN scope : TN are not designed to be "a club of experts", but difficult to involve lower-expertises resources into the "core community"**
  - **Forum widely opened to less experienced employees that can develop their skills (possibilities of consulting publications, asking questions..), but few contributions from them.**
- **Intercultural management challenge : a common language to exchange (English) But most of them are German or French : harder to communicate smoothly, harder to develop a common identity**

World Conference on Intellectual Capital for Communities
- Fourth Edition -

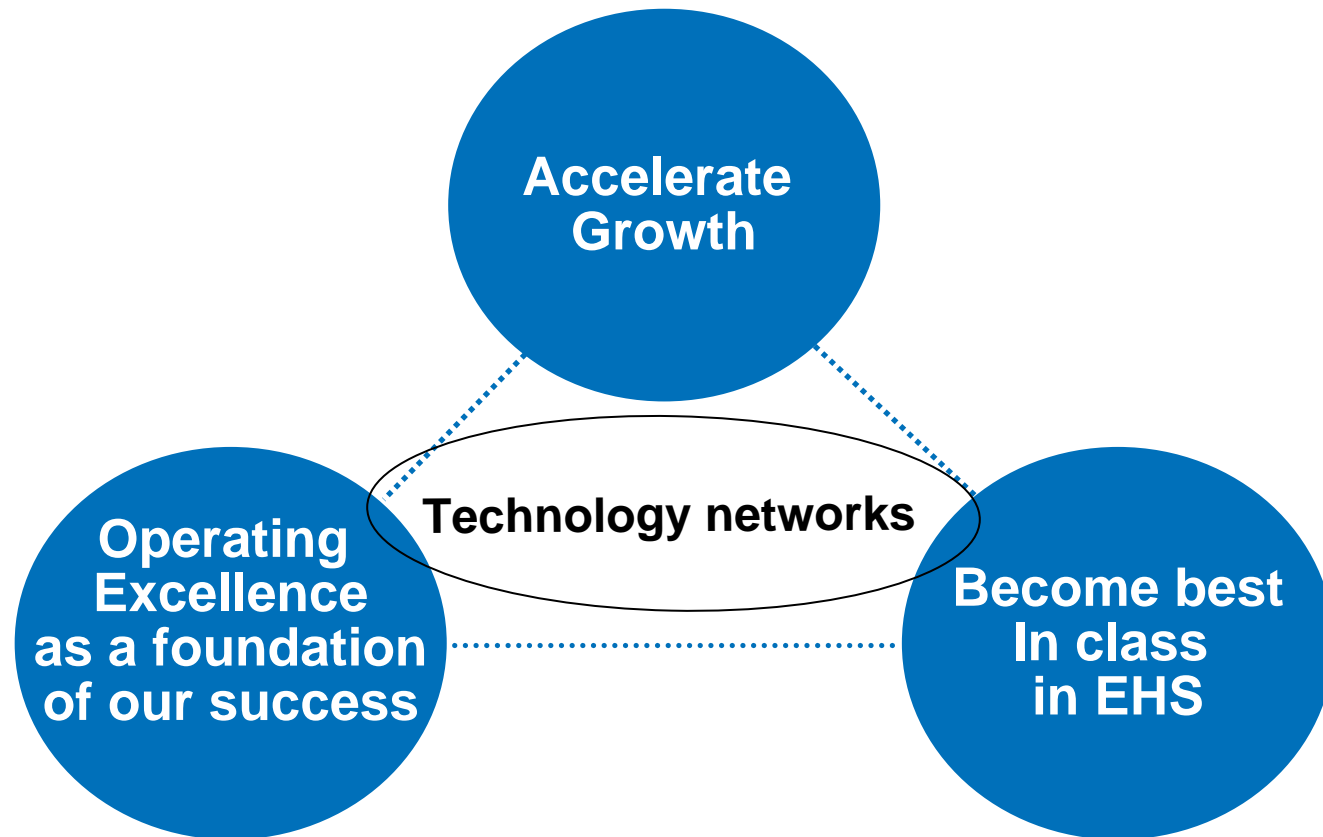# Next steps

- **Merger between Alcan and Rio Tinto**

- **Alcan Rio Tinto sells Engineered Products**
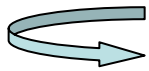
    Reinforce the feeling of belonging to Engineered products by sharing practices.

Next steps - Engineered products priorities : enhanced Value Creation going Forward, without the support of Alcan Rio Tinto

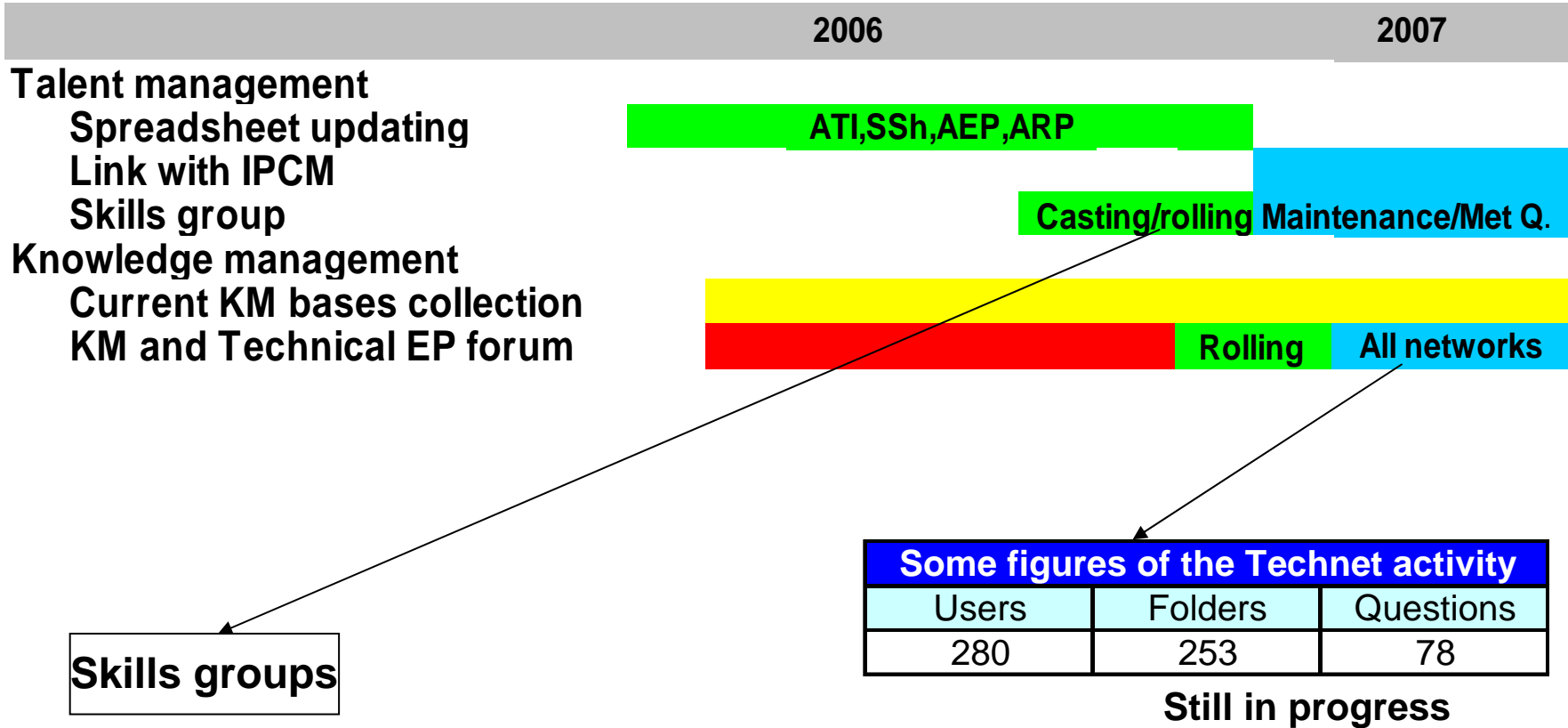**Technology networks, a key strengths on two pillars and a necessity to reinforce the culture**

Accelerate Growth

Technology networks

Operating Excellence as a foundation of our success

Become best In class in EHS

Rio Tinto Alcan

Thank you for your attention

APA : Talent and knowledge Mgt

	2006	2007

Talent management
    Spreadsheet updating — ATI,SSh,AEP,ARP
    Link with IPCM
    Skills group — Casting/rolling Maintenance/Met Q.
Knowledge management
    Current KM bases collection
    KM and Technical EP forum — Rolling All networks

Skills groups

Some figures of the Technet activity		
Users	Folders	Questions
280	253	78

Still in progress

C.I. : Example of technology audits

	2005		2006				2007		
CASTING	**Iss**	**NH**	**Singen**	**ARP**	**Decin**	**Chippis**	**Steg**	**Mont**	**Iss**
ROLLING								**NH**	

The audit team: Leader (from T&I) / T&I experts
Experts from other plants, BUs or BGs or external
1 or 2 BB or GB from the audited plant
With an existing framework set **by the community of experts**
delivers at the end of the audit recommendations

After one month the plant issues an action plan

Link with CI

The CI type actions
are followed up within the
Plant CI and FFF projects

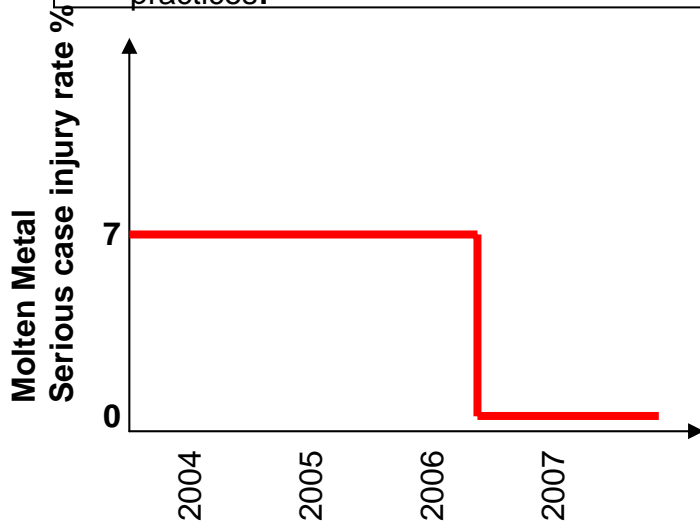The R&D type actions are
Followed up within the R&D
program

For KM 'forum and networking reasons all actions are
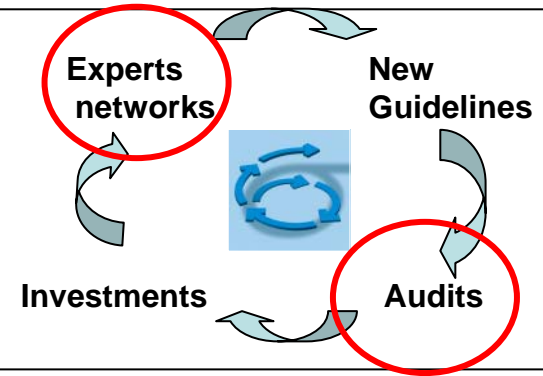followed up by the audit leader

Ess : Ex for Molten metal safety audits
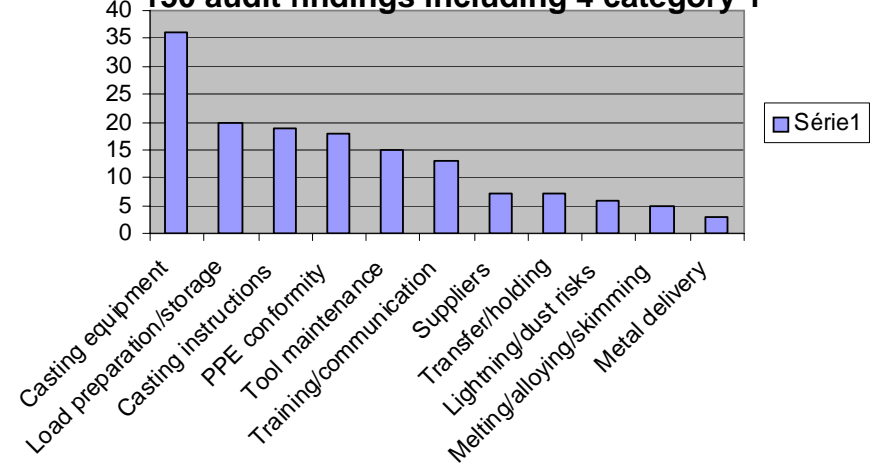
Objectives/Deliverables

No worker injuries nor equipment damage due to molten metal
Identify and implement good practices across all the EP casthouses.
Define requirements for new investments and revamps to comply with identified good practices.

Action Plan Initiatives

Experts networks

New Guidelines

Investments

Audits

Molten Metal Serious case injury rate %

7

0

2004　2005　2006　2007

150 audit findings including 4 category 1

40
35
30
25
20
15
10
5
0

☐ Série1

Casting equipment
Load preparation/storage
Casting instructions
PPE conformity
Tool maintenance
Training/communication
Suppliers
Transfer/holding
Lightning/dust risks
Melting/alloying/skimming
Metal delivery

Significant achievements
New EP guidelines (several versions from 2006 to 2008). New audit guide
2 full rounds of audits have been performed across all Casthouses. 150 findings. A third one going on during Q2 2008
Over 25 M$ investment requests
0 Molten Metal related Serious Case Injury recorded since end of 2006

Intellectual Capital for Communities
in the Knowledge Economy

VBM : Technology Networks

2005	2006	2007	2008
Recycling	Focus on training		
Casting	Link with CI for better action plan. Audits		
Hot Rolling	KM pilot.	Audits	
Cold rolling		Audits	
Finishing plate	Strong ARP involvement		
Finishing coil		Audits	
Auto/Measur.			
Maintenance			
Energy			Audits and pilots