



Building a Collaborative Decisions Environment for the Mining Industry

Samuel Lambrecht

Minerals & Mining Practice Director

Sandeep Chandran

Minerals & Mining Practice Director




Agenda


- 1 Mining Industry Context**
- 2 Towards a Collaborative Organization**
- 3 Building the CDE**
- 4 Benefits**
- 5 Conclusions**


Mining Industry Context




Mining Industry Context


 **Costs** Increasing due to energy, spare parts, machinery, personnel demands, and fuel prices.


 **Production** Reduction in ore concentration, changes in the ore type composition (unplanned events).

 **Mining Method** Transition from Surface to Underground Mining.

 **Strategic Resources** Lack of water.

 **Asset Location** Most of the people working or serving mining have to travel long distances being exposed in routes for long times.

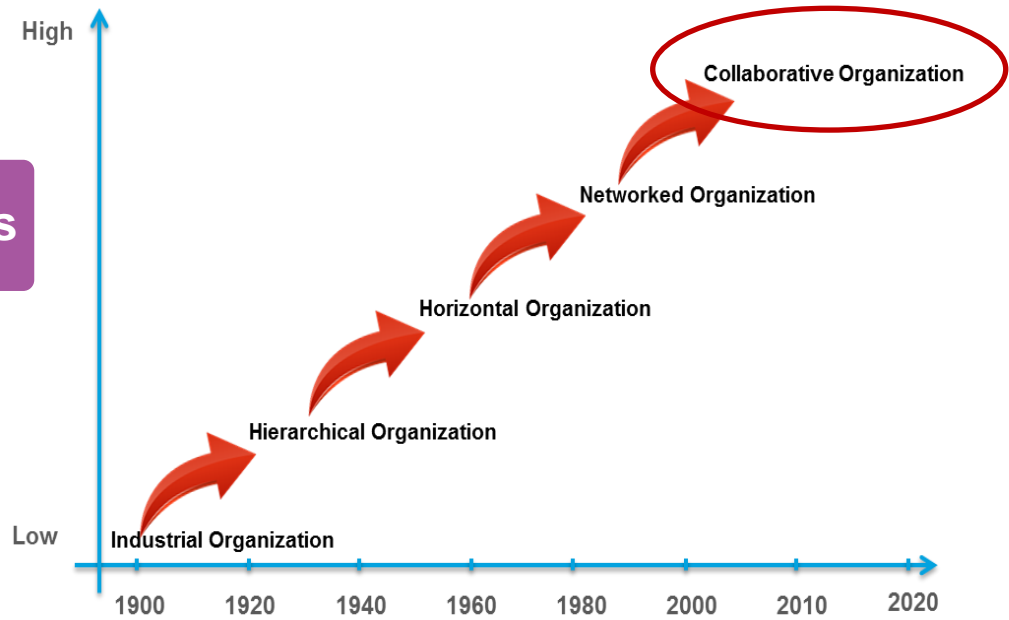
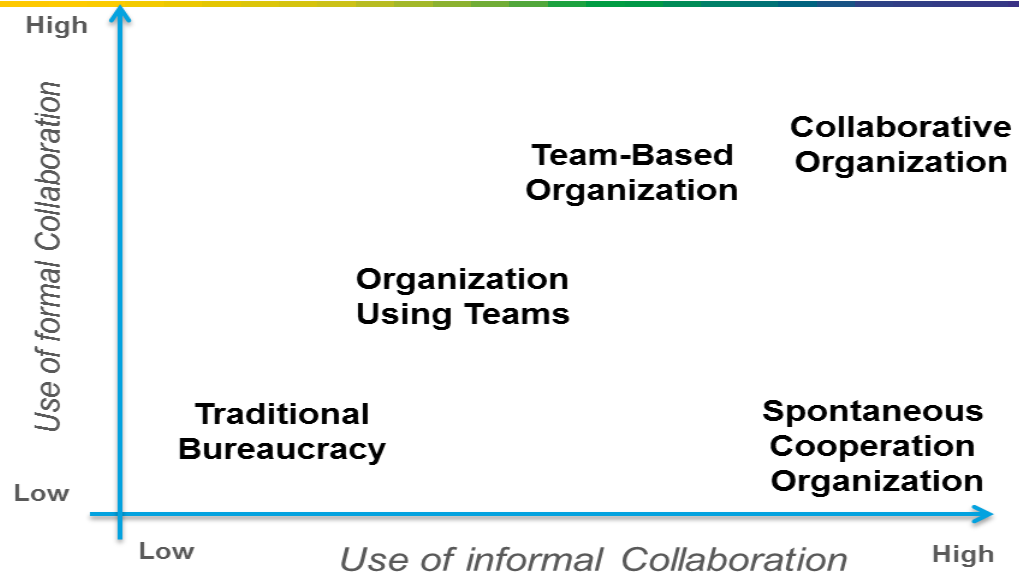
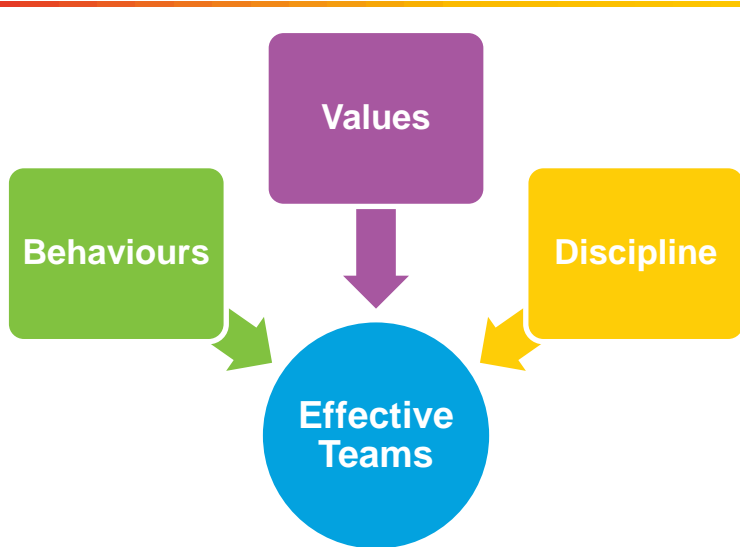
 **Working Style** Silos, different information in different areas for the same event. Duplicated efforts looking for the same information.

 **Personnel** Lack of personnel with the required experience and expertise. Generation Y, high rate of job change and quick professional development expected. Increasing pressures on wages.

Towards a Collaborative Organization



Towards a Collaborative Organization



What is Collaboration?



Collaboration is a principle-based approach to leading, managing and working; it is built on the principles of **ownership** and **alignment**.

Ownership is defined as the degree to which people believe or feel that a process, decision, or outcome is theirs.

Alignment is defined as the degree to which people see and understand the problem, goal, or process in the same way.

Ownership is like getting everyone in the same boat. Alignment is like getting everyone rowing in the same direction.

What is Collaboration?



- ✓ Collaboration is a leading and managing philosophy.
- ✓ Collaboration is principle based.
- ✓ Collaboration starts with a belief in the goodness of people.
- ✓ Collaboration is the way people naturally want to work.
- ✓ Collaboration creates high trust which leads to high performance and high accountability.

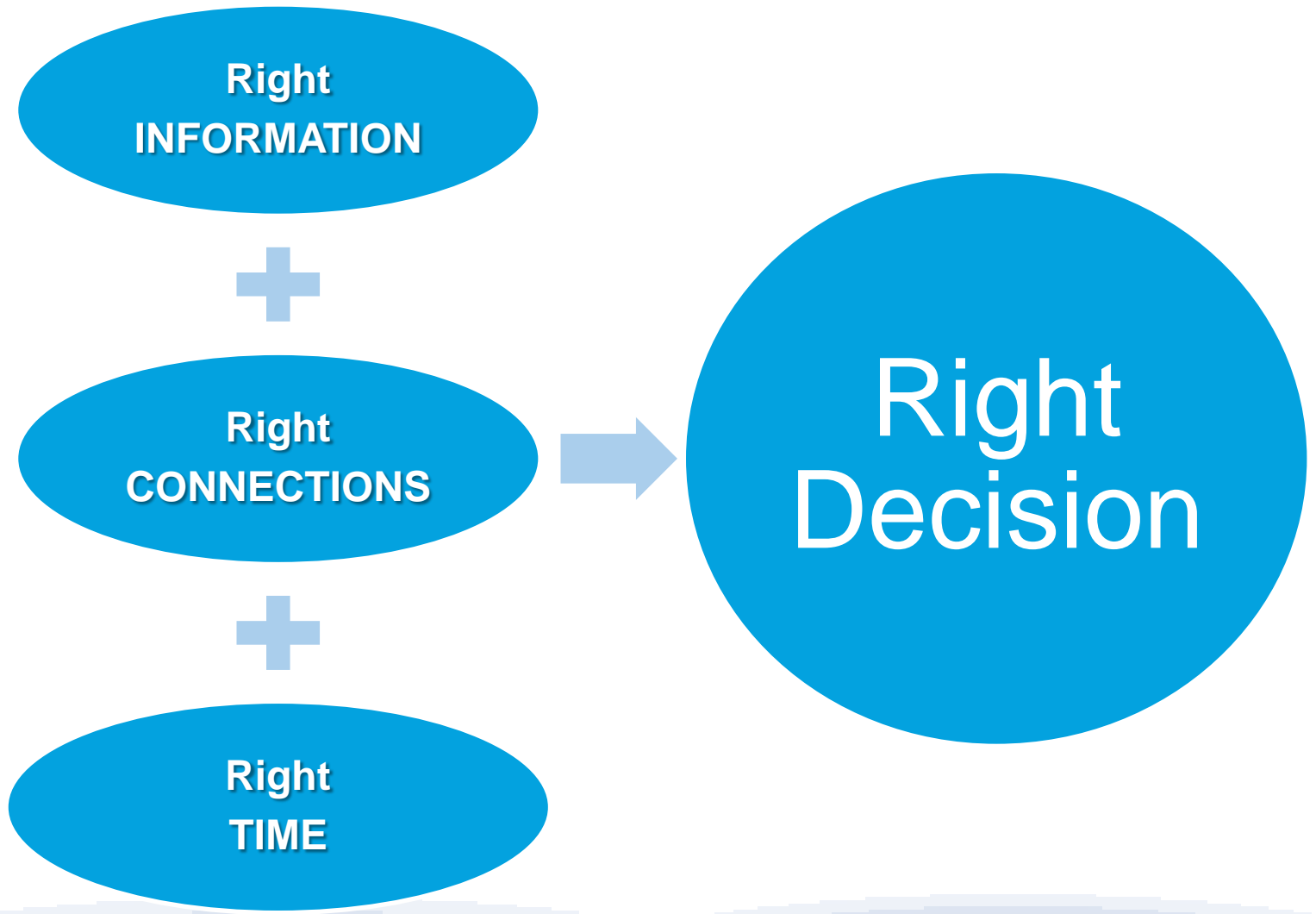
Building the Collaborative Decisions Environment (CDE)



Key Obstacles / Profitability Killers



Equation to remove profitability killers



Major Components



Collaborative tools & applications:

- ✓ High quality video conferencing;
- ✓ Immersive data displays;
- ✓ Information visualization and integration portals;
- ✓ Intuitive, flexible resource search capabilities

A fit-for-purpose physical and/or virtual environment designed to:

- ✓ Align staff activities to standardized work processes; and
- ✓ Enable right time connections between people and information.

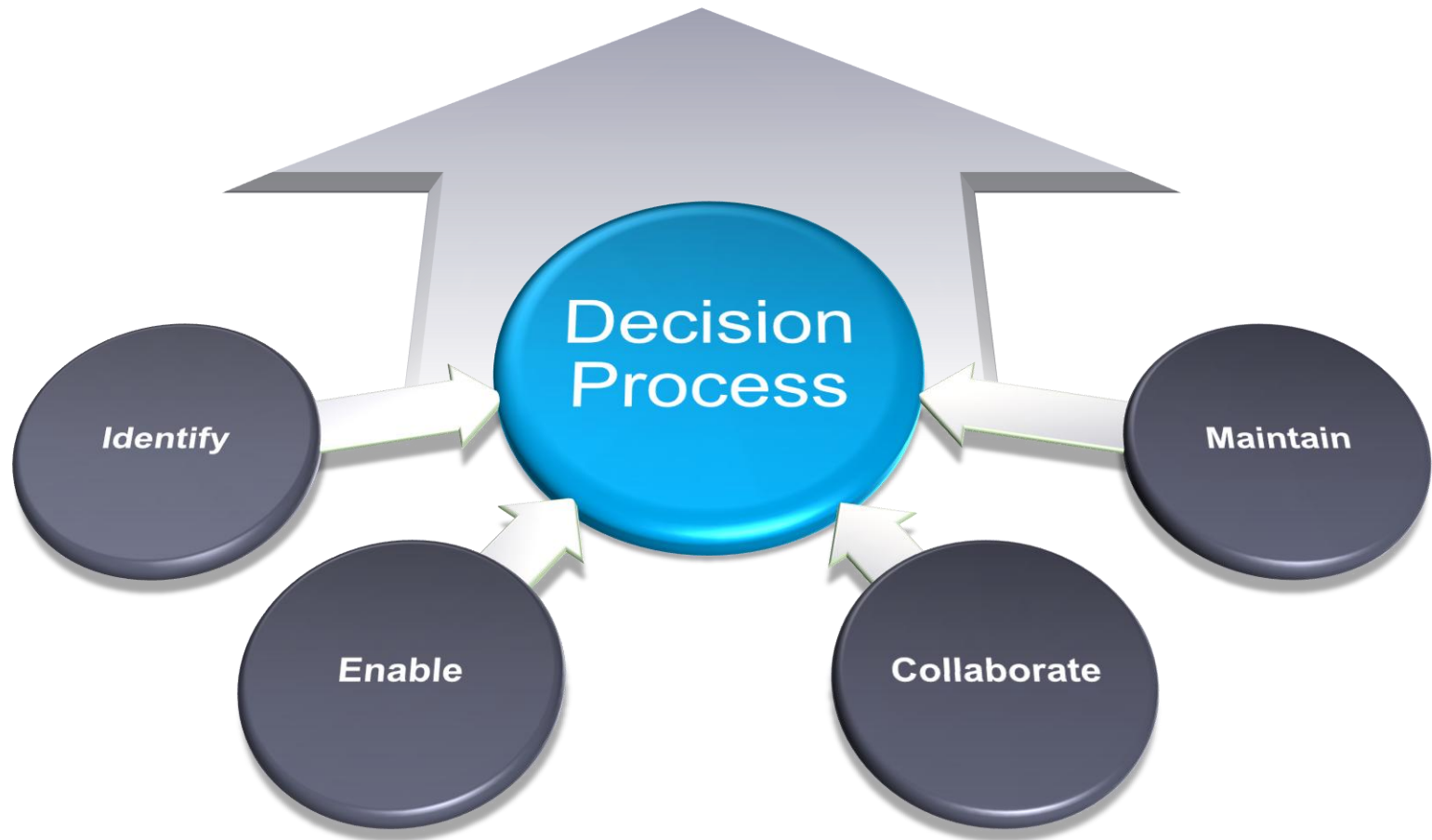


Adoption of collaboration as a best practice by:

- ✓ Driving and rewarding a team-based approach to problem solving and opportunity identification;
- ✓ Implementing behavioural coaching & training to embed organization priorities at the individual team and staff member level;
- ✓ Tracking quantitative metrics mapped against accepted business logic to measure performance and impact and to identify areas for continued improvement.

Decision Process

INCREASE EFFICIENCY



Layered Approach

Layer 1 - Collaboration

Layer 2 - Infrastructure and Equipment

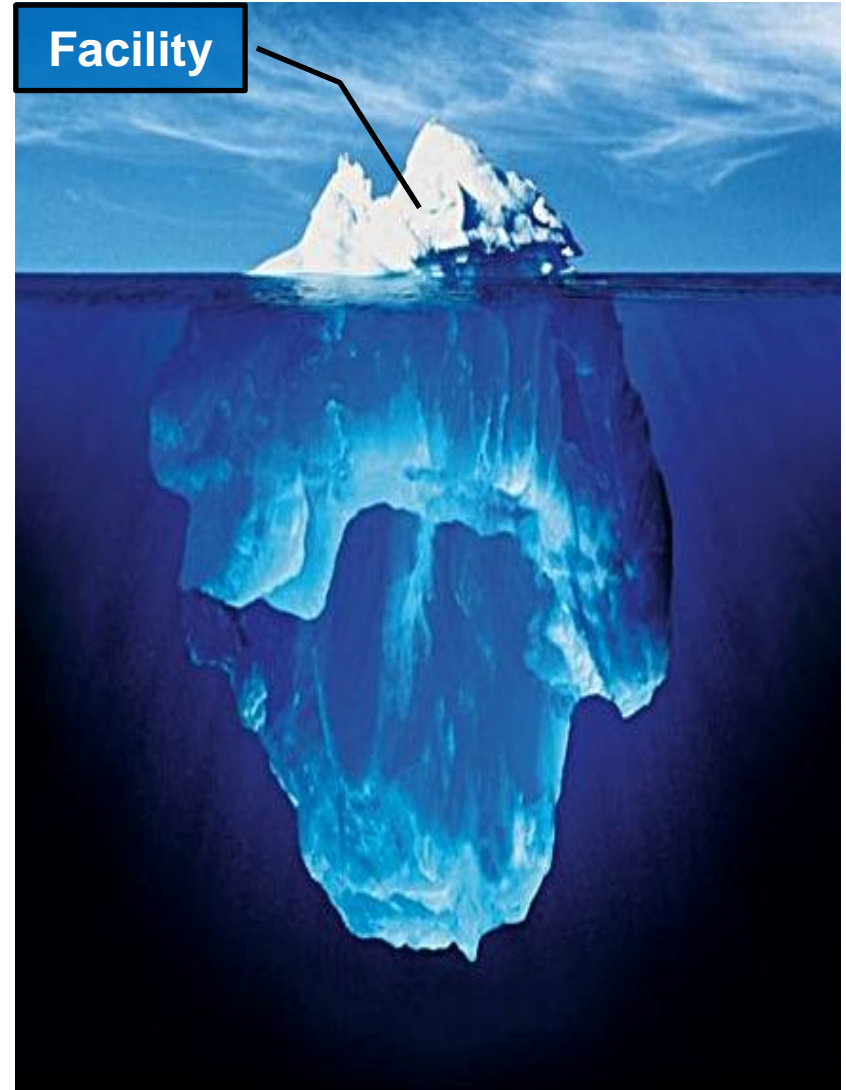
Layer 3 - Workflow and Data Visualization

Layer 4 - Information Integration

Layer 5 - Data and Application Management

Layer 6 - Data Capture and Quality Assurance

Facility



Layered Approach

Layer 1 - Collaboration

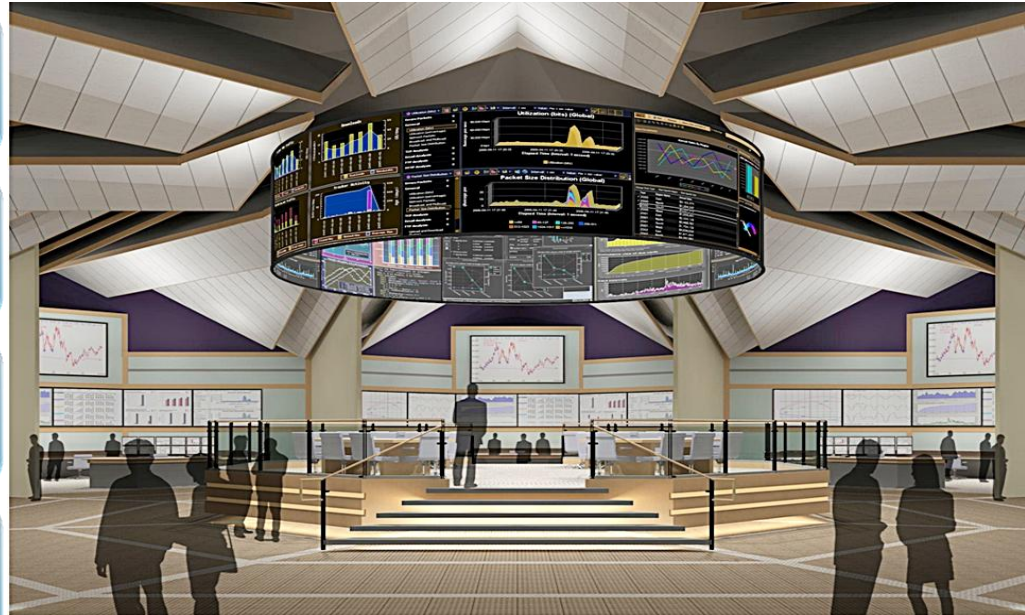
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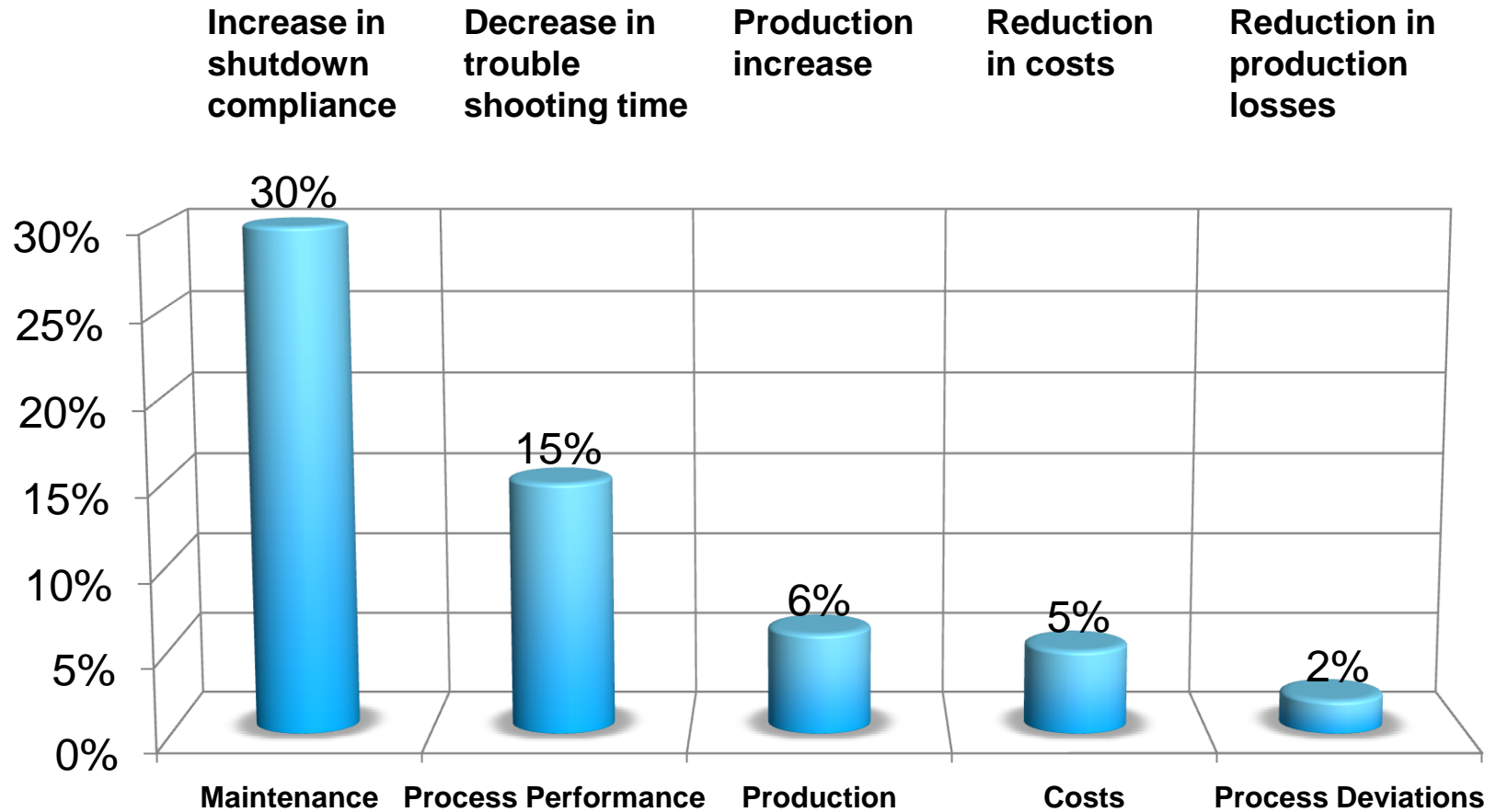
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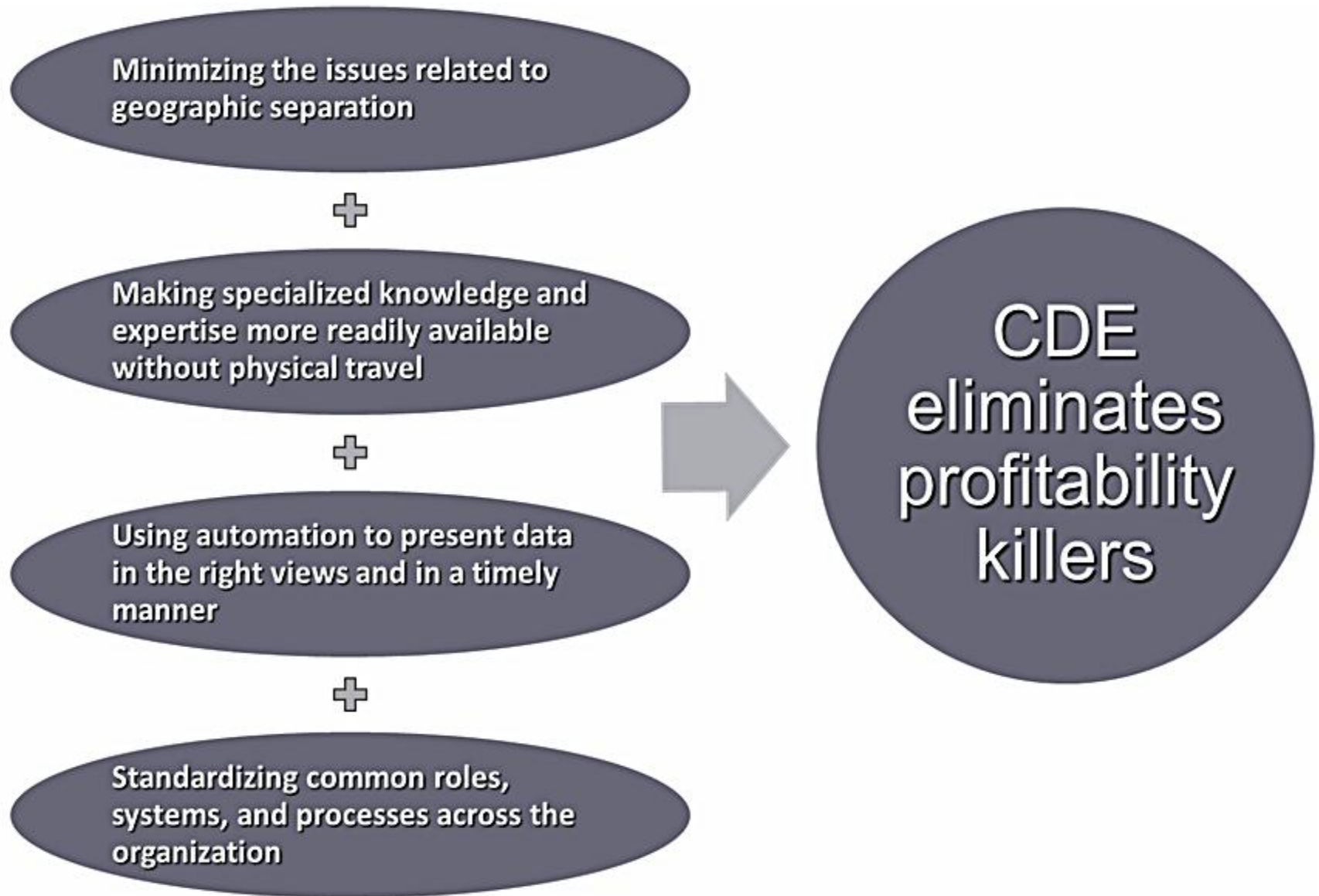
Benefits of the CDE



Benefits



Benefits



Conclusions



Conclusions

A CDE is becoming a new way to work for the mining Industry

CDE provide specialised environments where newly designed work processes and enhanced communications, appropriate tools and applications, data delivery infrastructure, and reporting systems are interconnected across multiple locations

CDE bring together key personnel with the expertise, knowledge, and experience required to realise asset performance goals and to improve the quality of analysis and decision-making

CDE therefore provide the right people, the right information and the right analysis, at the right time, to deliver timely and improved decision-making to tackle complex problems and opportunities

KNOW SOONER TO DECIDE FASTER AND PERFORM BETTER



Thank you

Samuel Lambrecht

Minerals & Mining Practice Director

samuel.lambrecht@wipro.com

