The pain is clearly etched on Carolyn Hewson's face. The BHP Billiton director is talking about the tragic Samarco dam collapse a little over a year ago.

And she is the first director of the mining giant to do so publicly.

"None of us ever expected a dam would collapse and wipe out villages," she told the audience in a rare on-the-record public appearance at the recent the Creative Innovation summit in Melbourne.

She says BHP certainly had tailings dam failure high up on its risk register - aircraft crashes are at the top - but nothing quite like the catastrophic event that sent a tsunami of red sludge hurtling down a Brazilian valley that took the lives of 19 workers and nearby residents.

She raises the issue in the context of wideranging discussion at the conference about innovation and managing risk. As ANZ and Coca-Cola Amatil chairman David Gonski remarked at an earlier session: "Most people fear risk. I fear not understanding risk."

And Telstra and Fletcher Building director Steve Vamos put the link between innovation and risk another way: "There is nothing you are good at today that you didn't learn from making mistakes."

However, to Hewson the Samarco experience highlighted one of her firm beliefs in the value to every corporation of a charter of values that every employee must live by, which must be strictly enforced by management.

"A charter of values that everyone in the organisation understands can be very valuable. And people who do not adhere to it need to be dismissed," she says.

It comes into its own in times of crisis and that is exactly what happened in the hours that followed the Samarco disaster at BHP. She says that when a tragedy happens you fall back "on what the charter tells you how you have to act".

"When everyone in the organisation understands it, that is the best way of dealing with it when something catastrophic happens."

Many have contrasted the way BHP and its CEO Andrew Mackenzie deal with the Samarco disaster with the way Ardent Leisure clumsily handled the tragic death of four people at its flagship theme park Dreamworld. Hewson does not comment on Ardent but stresses BHP's charter of values was the centrepiece of its textbook response to the Samarco tragedy and its "superhuman effort" to support the people affected.

It has not been perfect chairman Jac Nasser responded at the company's recent AGM to claims that many victims of Samarco were still awaiting compensation more than a year later, noting it was partly the result of the company's efforts to respond as quickly as possible.

Mackenzie added: "We're not done yet. We're not done registering people to be compensated or paying out the compensation."

Asked more broadly about the level of innovation inside the world's second biggest mining company, Hewson - who is believed to have ruled herself out from being the company's next chairman to replace Nasser because of family responsibilities - stresses that change is always easier in times of crisis.

"What I have found is that it easier when there is a burning platform," she says, noting that after a year when commodity prices halved BHP was far more open to change.

She describes innovation inside the mining giant as a "work in progress" and notes that in response to the commodity price falls, the company has "established a significantly different approach to technology and innovation" especially in adjusting its production volumes to match demand.

"It is early days, we have probably been doing this for a year. But the steps we have taken are very positive," she says, using as an another example the use of 3D imaging of oil and gas reserves as a means to cut exploration costs significantly.

Talking more generally about innovation in corporate Australia, Hewson says "you have to allow people in big organisations the space to fail if they are going to be truly confident about innovation".