



a **solution** to the
safety **challenge**





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Who is Sentis?

Sentis is a team of Psychologists and Safety Professionals who specialize in enhancing safety and leadership performance. The word Sentis originates from the Latin words **Securus Mens Mentis** which means Safe Mind. It is the human mind that is our focus in that we see the mind as our most important safety tool. We do not do safety audits nor do we provide training in specific safety behaviours such as confined work space or working at heights. Instead at Sentis we focus our attention on teaching people how to use their brains effectively to keep themselves safe.

As a global company we deal with global clients. Some of the clients we have worked with include:

Aker Solutions	Ergon Energy
Alcoa	ESB
Anglesey Aluminium	Genesis Energy
Anglo American	Gladstone Power Station
Bechtel	Goldfields
BHP Billiton	Illawarra Coal
BHPB Energy Coal South Africa	Maryborough Sugar Factory
BHPB Iron Ore	New Mexico Coal
BHP Mitsubishi Alliance	Peabody
Boeing	Queensland Mine Rescue Service
Cleveland-Cliffs Inc.	Queensland Nitrates
Consolidated Minerals	Rio Tinto Alcan
Diversified Construction	Rio Tinto Coal
Dyno Nobel	Stanwell Corporation
Energex	Wesfarmers Coal

ZIP focuses on providing people with information about the “**why**” of safety

The Safety Challenge

Many companies have shown dramatic improvements in the traditional measures of safety performance over recent decades. Building on this success, mature and responsible businesses are now in pursuit of Zero Harm for their people. Despite the drive to reach 'zero' however, many companies are experiencing a plateau effect in their safety performance. We refer to this plateau effect as the Safety Challenge.

Traditionally the pursuit of zero safety incidents has utilized Behaviour-based Safety (BBS) systems and has achieved results of varying success. Businesses that are brave and honest enough to conduct genuine assessments of their continuing safety performance, recognize that the early gains made through BBS have reached plateaus and, in some cases, safety performance is again on the decline. We believe this is due to the limitations of the foundations of BBS, which is the psychological theory of Behaviourism.

Behaviourism and the BBS model assume that external motivators are required to have employees behave in certain ways. This theory does not take into account a fundamental human aspect – that people think and feel independently of the reward and punishment systems set up in a BBS system. From a psychological perspective, the reason BBS has not, and cannot, produce the safety results required is because it is an incomplete theory being used incorrectly.

If a business is to truly enhance its safety performance for its people, then it needs to consider its people for what they are and not as simply a set of behaviours. The question Safety Professionals are now asking is “How do we respond to this challenge and help our people keep themselves safe?”



A Culture of Safety

Safety Culture Model



It is common to think of safety as a component of business, like production or maintenance. We would suggest another way of seeing safety. We would suggest that safety is not a part of your business, rather safety is an outcome of business. Safety performance comes from the effectiveness of your internal systems and processes, it comes from the quality and maintenance of your plant and equipment. Further to that, safety performance comes from the effectiveness of your leadership, the effectiveness of your communication and all the human interactions in your business. It is a result of the effectiveness of people interacting in the work environment. Everything that happens in your business combines to give you your safety performance.

Thus, we believe that safety performance comes from the performance of your business culture. We refer to this working model of safety as a Safety Culture Model.

The Safety Culture Model

A Safety Culture Model looks at an entire organization, and represents excellence across all four areas of the model.

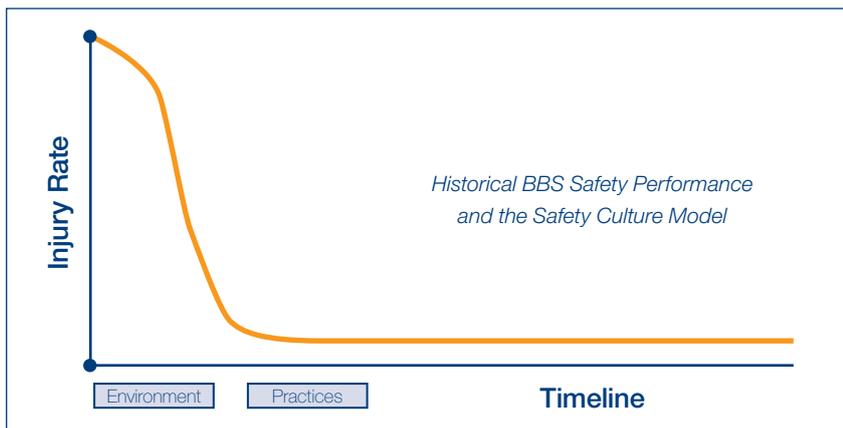
1. A company invests in its **Physical Environment**. This includes plant, machinery, tools, equipment, guards and rails.
2. A company is committed to excellent safety **Practices and Processes**. This includes standard operating procedures that are accessible and easy to understand, effective and ongoing training, toolbox talks and start of shift meetings. These are the components of your culture that guide your behaviours. The goal is to have practices that assist with safe production rather than get in its way.
3. The **Person** component of a Safety Culture Model is made up of the people within a business – their skills, abilities, knowledge, motivations and attitudes. Safe and professional people are those who take ownership for their results, who can identify and manage risks, who manage stress effectively, who operate machinery and vehicles with careful attention, and who display an attitude of professionalism in all their work efforts.
4. **Leadership** more than any other single factor will impact on business culture and thus safety performance. It is demonstrated by a focus on “safe production” rather than safety and production being viewed as two separate functions of the business. Under pressure, effective leadership displays integrity in its commitment to people working safely. Incidents are viewed as learning processes and energy is invested in coaching or exiting those who may be at high risk.

Why the Safety Plateau?

Safety incidents occur when a combination of the components of the Safety Culture Model falter. Rarely are safety incidents the result of one component failing. It is almost always due to a number of components interacting in an ineffective way. BBS has been effective in the past in reducing safety incidents as it interacted with the Practices and Environment components of the Safety Culture Model.

A Safety Culture Model suggests that all four components must be working well for a company to have effective safety performance.

Sentis Psychologists believe the plateau many are experiencing is because the Behavioural Theory that BBS is based upon is not effective in enhancing the Person component.



There is a significant amount of evidence to suggest that a more cognitive approach is required as we progress to the next level of safety performance.

Beyond the Plateau?

Cognitive Behavioural Safety (CBS) provides a more effective response to the current safety challenge. Drawing on the more mature psychological theory of Cognitive Behaviourism, CBS recognizes that an individual's behaviour is a function not only of external influences and consequences but is also guided by the individual's internal attitudes, values, belief systems and frames of reference. CBS takes into account that a person is driven by internal processes that are important to them and that need to be recognized as affecting the way they act in the world. By utilizing CBS within your business, we create a genuine opportunity for your people to dramatically improve their ability to keep themselves safe.

One of the worlds leading safety psychologists Dr. E. Scott Geller has stated that behaviour based safety (BBS) programs, taken alone, cannot be effective unless the workforce believes in and willingly applies the principles of the BBS program. To achieve a truly effective Safety Culture and Zero Incidents for our people, it is necessary to integrate both behavioural and person-centred approaches to safety.

CBS has been operationalized through the ZERO Incident Process otherwise known as ZIP, a unique psychologically-based safety process developed by **Sentis**.



The best workplaces
aim for **zero**

What is ZIP?

Safety Culture Model



ZIP is a process that gives a workplace the genuine opportunity to reach the goal of Zero Incidents. It is a psychologically-based safety process that moves your people from extrinsically driven safety to intrinsically motivated safety. It does this by focusing on the Person component of the Safety Culture Model. ZIP is designed to empower people to take control of their personal safety by becoming more effective within the systems they work in. These systems are made up of the Practices and Environment component of the Safety Culture Model. ZIP does this by giving people insight into the way their brain works, their thinking, their attitudes and how this drives their behaviour. It gives participants the tools to take control of their thoughts and feelings, and thus the results they get in life, especially regarding their safety.

Whilst ZIP moves Safety Culture change from BBS to the more mature CBS, it is designed to work alongside and enhance any BBS initiatives that are already operating in your business. It fills in the gaps between where your safety performance currently is and where you want it to be. It moves a step beyond BBS to the underlying psychological causes of behaviour – thinking and feeling. This is what people refer to as the ‘hearts and minds’ of safety.

ZIP and Your Safety Culture

ZIP can enhance your Safety Culture regardless of where your business is on the journey to Zero Incidents. Importantly, it provides maintenance tools to facilitate the continued journey toward excellence.

There is no way a company could write a policy or put a guard in place for every possible risk in their business. What keeps a person safe most of the time is their skills, knowledge and attitudes towards safety. The link between safety attitudes and safety performance is well documented and is the focus of ZIP.

While ZIP does not address the Environment and Practices components of the Safety Culture Model directly, it enhances them by focusing on the Person component. Importantly, ZIP is not a program in “what” is safe, nor is it instructions on “how” to follow procedures. Instead, ZIP focuses on providing people with information about the “why” of safety and the skills to make safe choices in the workplace and at home. It achieves this goal by presenting the brain as a machine and ZIP is an apprenticeship in how to work this machine skillfully and how to maintain it.



ZIP can **enhance**
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Incidents

Safety Attitudes

Attitudes are a combination of 2 components: thinking (cognition) and feelings (affect). Attitudes drive behaviour, which then influence performance and success. Attitudes themselves are neither bad nor good. Attitudes are neutral until a goal is fixed. Attitudes towards goal accomplishment can be seen as either –

Helpful	Hindering
<p>A helpful attitude towards safety is a thinking pattern that drives safe behaviour and hence Zero Incidents.</p> <p>For example, if I believe that wearing PPE will keep me safe from harm then I will choose to wear PPE for my own protection, and the result is the prevention of an incident or the reduction of harm.</p>	<p>A hindering attitude involves thought processes that get in the way of achieving Zero Incidents.</p> <p>For example, if I choose to wear PPE because it is a policy and compliance to avoid discipline is important to me, then I will choose to wear PPE. However, because my goal is to avoid punishment I may choose not to wear it if I am on night shift and unsupervised.</p>

A helpful safety attitude, therefore, reflects a thinking pattern where the goal is to be safe for reasons that are important to the individual, while a hindering safety attitude reflects a belief that safety is the ruling of management and the goal is to avoid disciplinary procedures.

The BIG5 Safety Attitudes

ZIP is based on what is referred to as the BIG5 Safety Attitudes or thinking patterns. Psychological research has demonstrated that the BIG5 are linked to safe behaviours and hence safe results. These are:

1. Safety Control – Willingness to take personal control of and responsibility for your life;
2. Risk Awareness – Ability to perceive and manage risk;
3. Operating Attitude – Understanding and commitment to the safe operation of machinery and vehicles;
4. Stress Management – Awareness and management of your internal stress energy;
5. Professional Orientation – Understanding and commitment to work to the required standard and constantly looking for ways to improve. It is about working effectively, efficiently and safely.

Safety Control – I'm responsible, I'm in control

As an attitude and thinking pattern, Safety Control can be defined as the amount of control a person believes they have over their personal safety.

Someone with a helpful Safety Control attitude takes their portion of responsibility for safety outcomes on site. Because these people understand their personal role in achieving Zero Incidents, they act as their own safety officer and have a duty of care approach to the safety of others. Because they take ownership of their safety, they can control it.

People with a hindering Safety Control attitude generally hand control of their safety to luck or someone else. They are less likely to follow safety procedures because they see them as a waste of time or as a legal exercise by management. When an incident occurs, they first look outside of themselves at management, the weather, the equipment, the procedures, and so on. They see the incident as the result of events outside of their control. As a result of not taking ownership of their safety, these people cannot control it.

Risk Awareness – I see it, I manage it

Risk Awareness reflects the level of interest in perceiving and managing potential risks. Perception of risk refers to a person's attentiveness and alertness to energies in their internal and external environment that have the potential to cause harm.

People with helpful Risk Awareness attitudes actively switch their brains on to look for potential risks in their environment, and choose to manage the risk effectively or avoid the situation altogether. People with hindering Risk Awareness attitudes either are not switched on to the risks around them or choose not to manage the risks they do perceive. These people fall into the trap of complacency – "I've always done it this way". Because they don't see the danger, they are less prepared for the unexpected.

Operating Attitude – How I operate drives how I operate

To achieve the goal of Zero Incidents there are four factors that an individual can choose to focus on to manage risks on the road and in the workplace.

Speeding – On the road, this is driving above the speed limit; in the workplace, this is rushing or being distracted by time pressure.

Alcohol – Alcohol inhibits blood from transporting oxygen to brain cells. It can affect millions of nerve cells and change communication patterns throughout the brain. Alcohol can impair vision and judgment, dull the body's senses, disturb motor skills, and reduce co-ordination.

Fatigue – The symptoms of fatigue include loss of concentration, yawning, sore or tired eyes, and making fewer and larger corrections during machinery operation.

Frustration – Frustration is usually experienced when we perceive that other people or things get in the way of a person achieving his or her goal. At its extreme, this energy can be expressed as verbal or physical aggression towards others.

ZIP focuses on providing the brain science behind these four factors, to promote the helpful Operating Attitude that manages the risks presented by each of them.



Attitudes **drive**
behaviour, which
then influences
performance
and **success**

Stress Management – I’m feeling it, I’m channelling it

Stress is a feeling typically experienced when facing a challenge or threat. It is an “e-motion” – energy in motion – a force that gets us moving. Stress is created by a perceived inability to respond to one’s current challenges.

There are two directions stress can drive us in:

Fight or Flight – This response was inherited from our primitive ancestors who needed to be able to fight or flee when they perceived a threat in a hostile environment. This is a hindering stress response for safety.

Stay & Play – This is the positively energized response to a given challenge. The key difference is in the individual’s perception of the demands of the task related to the ability, and the choice in how to best respond. This is a helpful stress response for safety.

Professional Orientation – I do it well, I make it better

The definition of a professional is someone who earns a living. This is different to Professionalism, which is an attitude that demonstrates a commitment to a vocation, taking the time to obtain the skills, experience and expertise necessary to do the job in an outstanding manner and constantly look for ways to improve. Individuals with Professionalism demonstrate the following personal attributes:

- Tolerance and respect for others;
- Continuous improvement mentality;
- Value and pride in the job they do;
- Set goals and develop action steps to reach them.

ZIP focuses on the difference between a professional and the attitude of Professionalism.

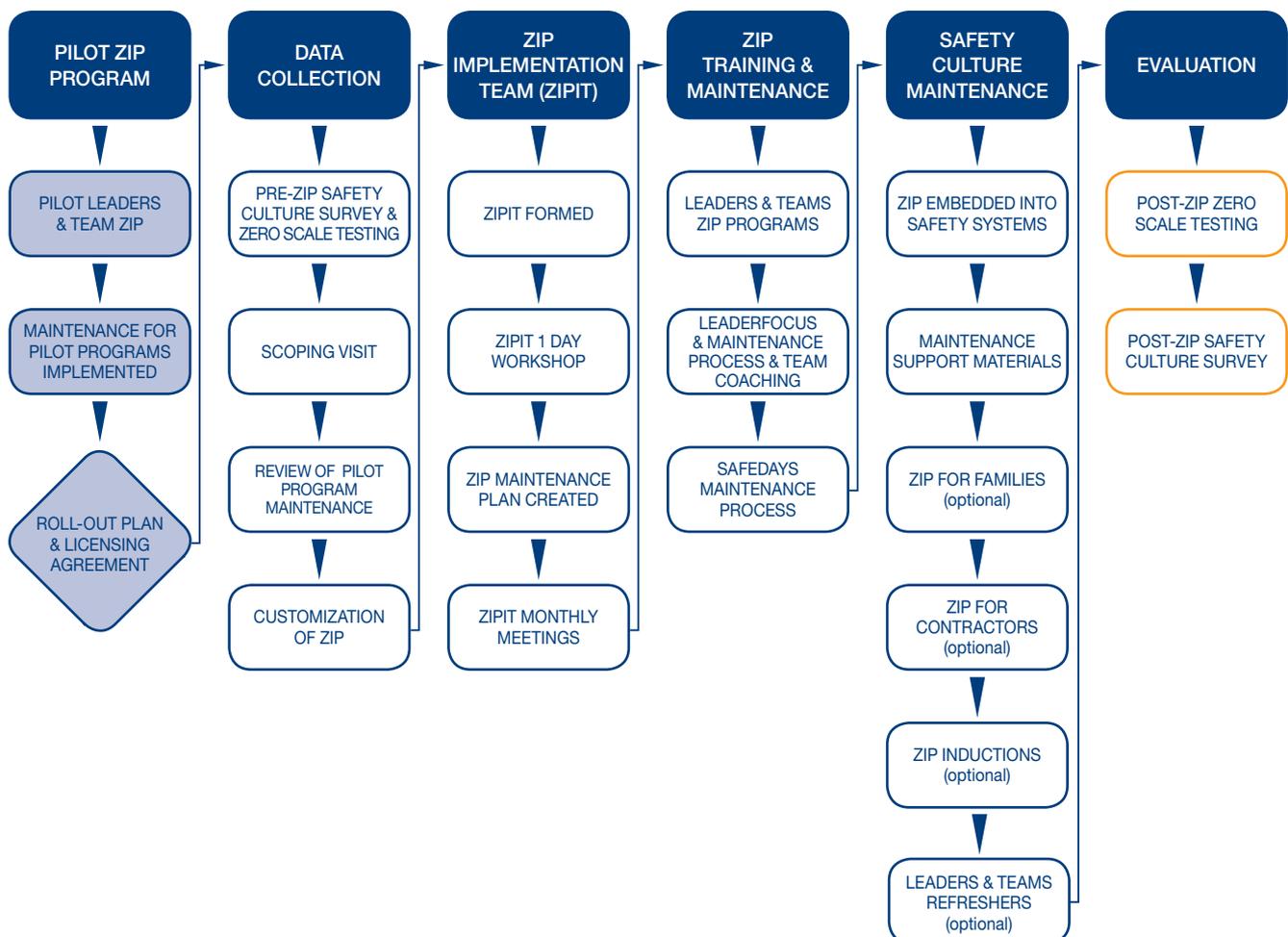
Brain Tools

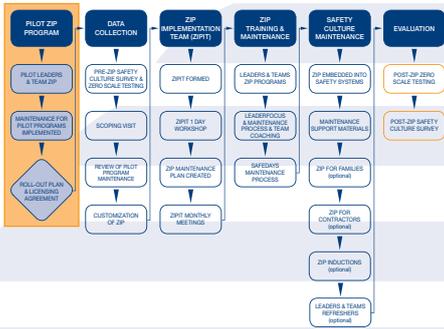
The final component of ZIP are the Brain Tools. The Brain Tools are powerful psychological skills that can be used to change your thinking and feelings and thus your attitudes. These techniques bridge the gap between effective and ineffective thinking patterns. As such, they can be used to enhance safety performance. They can also be used to enhance performance in any area of life.

The ZERO Incident Process

ZIP is NOT simply a training event. Nor is ZIP simply a program. ZIP is a serious, psychologically-based **process** designed to implement genuine change in Safety Culture and performance. It is a methodical and deliberate process, which requires mature leadership and a genuine commitment. Change of this nature happens in a controlled and gradual manner; in Safety Culture change there is no such thing as a quick fix. ZIP is NOT a quick fix for safety – we ask you to be aware that it is a process designed for organizations with leadership that have a genuine commitment to their people and their business.

Rather than being just a training event, ZIP is an ongoing process designed to maintain and reinforce itself within your business. The ZERO Incident Process rolls out in a business via a number of controlled phases. These are:

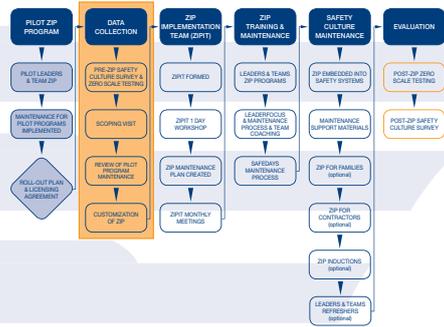




ZIP Pilot Programs Phase

We always begin with a Pilot process. It is a relatively small investment of resources and allows both your company and ours to make an effective and experience based decision on the suitability of ZIP in your business.

A ZIP Pilot usually consists of two or three ZIP programs. Ideally one Senior Leader group and one or two Team groups.



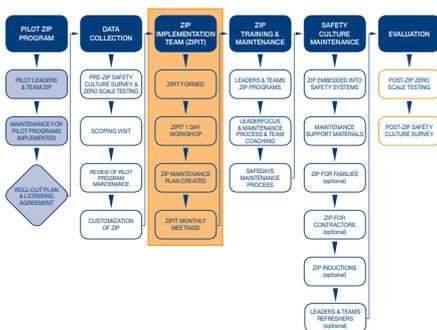
Data Collection Phase

We begin this phase with a ZIP Safety Culture Survey, which determines the current Safety Culture within your business. The ZIP Safety Culture Survey provides valuable information regarding people's perceptions of the Safety Culture within the organization, and gives your business a big picture view of current perceptions towards safety. These perceptions are very important as when dealing with people, perception is reality.

The second psychometric that is used during ZIP is the ZERO Scale. The ZERO Scale is used as a learning opportunity to provide information to the individual regarding their personal BIG5 Safety Attitudes. We measure the BIG5 attitudes in terms of helpful and hindering thinking patterns towards safety, health and well-being. The BIG5 attitudes have been statistically found to determine the likelihood of being involved in a safety incident. Information is provided on an individual one-on-one basis and according to the privacy laws and ethical codes that govern the use of psychometric instruments in the country of their use.

Once we have this data on your businesses' Safety Culture, the customization process begins, which is designed to allow us to implement ZIP more effectively for your business. The customization process begins with a scoping visit to your site/s. Here we ask you to take us on a tour of your site/s to help us understand your working environment and practices. We will ask to meet with a variety of your people, including managers, supervisors, safety personnel and members of the workforce. We will spend time talking with them, asking them about their work and their perceptions of the Safety Culture in your organization. We will supply you with a list of documents, examples and safety statistics we will need. Once we have completed the scoping visit, we customize ZIP for your organization using relevant examples, specific language, and pertinent processes. This shows your people that we understand their efforts and the challenges unique to them, increasing the transfer of learning.

This is not simply a training event or a program. **ZIP is a process** designed to implement **genuine change**

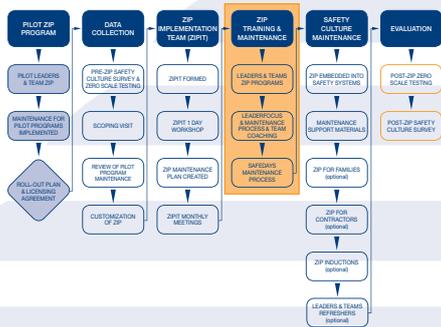


ZIP Implementation Team Phase

Once you have decided to proceed with a full ZIP roll-out, the next stage to occur is the formation and implementation of the 'ZIP Implementation Team' (ZIPIT).

The purpose of the ZIPIT is to establish your vision for the Safety Culture you want to create and maintain in your business. The ZIPIT consists of leaders who are passionate about becoming internal ZIP experts to assist in embedding ZIP into the culture, your existing systems and within the organizational mindset.

The team works alongside Sentis Psychologists and Safety Professionals to set up the foundations of ZIPIT, and then progress toward the goal of the ZIPIT managing the ongoing success of ZIP within your organization. Initially there are a number of one day ZIPIT sessions. Regular ZIPIT meetings then occur for the duration of your ZIP roll-out.



ZIP Training and Maintenance / Embedding Phase

Leadership is an essential component in the journey to Zero Incidents, and must precede other ZIP programs being rolled out to your workforce. In a business, leaders effectively “make or break” the Safety Culture, so it is essential that your leadership team particularly the management team, understands and is able to fully support ZIP in your business.

Leaders

The Leaders program is a 4 day process conducted in 2 x 2 day modules, one month apart. Each participant will be provided with a full set of program materials which include workbooks, memory cards (RAS cards), pens, 15 Leadersheets sent out every 2 weeks and 26 weekly Factsheets. These information sheets will be emailed to each participant upon completion of the program.

The content in each of the modules is as follows:

Module 1 [2 days]

Day 1 focuses upon the individual, their internal processes, self-empowerment and self-accountability regarding safety. It is designed to give the participant an even higher level of insight into their internal processes to empower them to make better decisions, particularly with regard to safety. Day 1 is experientially based, very intensive, extremely informative and interesting.

Day 2 focuses upon sharing cognitive skills designed to give individuals control over their thinking to increase their personal safety. These tools, known as Brain Tools, are practical techniques that can assist individuals to develop the areas of their life, with an emphasis on safety, that are currently a challenge.

Objectives include:

- How my brain works and how I can use it to keep myself safe
- How our belief systems and attitudes are formed and how they affect our safety
- Five thinking patterns shown through psychological research to increase personal safety



It is **essential** that your leadership **understands** and **fully supports ZIP** in your business



SafeDays is a highly flexible self-maintenance process that can be **tailored to fit** the needs of any organisation

Module 2 [2 days]

Day 1 includes a review of the content and personal projects from Module 1. The main focus of the day is to provide Leaders a better understanding of why people with the same training and experience respond differently to the issue of safety. It is also designed to give Leaders a powerful psychological framework for understanding people which enables them to assess the best safety communication style for each person in their team and how to respond to safety challenges on an individual basis.

Day 2 continues the development of psychological techniques for influencing the choice of attitude change in people. It is an intensive and powerful session focused on the leadership skill of Straight Talking.

Objectives include:

- Role of leadership in the safety culture
- Psychology of effective safety performance and safety leadership
- Tools of psychological influence

LeaderFocus Maintenance Process and Team Coaching

Once the training component of ZIP has been implemented with your Leadership team, it is essential to establish a way of embedding and maintaining BIG5 Safety Attitudes and Brain Tools so they are useable skills. These skills are important tools in the process of creating an effective Safety Culture. While we know it is Leaders that create your safety culture, few leaders go through the process of consciously developing the skills necessary to create a safety culture. The LeaderFocus Process and Leadership Team Coaching Process can assist your leaders to enhance the skills necessary to consciously create or enhance a truly effective safety culture in your business.

The LeaderFocus and Leadership Team Coaching Processes are designed to complement your normal management team meetings. They are structured, yet customizable processes that allow for a constant refreshing of the ZIP learnings regarding the effective use of the brain, the BIG5 Safety Attitudes, the Brain Tools, and keeping the information alive in the thinking processes of the leadership team. The LeaderFocus Process works by reviewing activities and achievements of the previous period and planning for the coming period with the goal of continuing leadership development with a strong safety orientation. This process is led and maintained by the senior leader and their team. It takes approximately ten minutes at the start of any standard management meeting.

Teams

The Teams program is a 2 day process. Each participant will be provided with a full set of program materials which include workbooks, memory cards (RAS cards), pens and 26 weekly Factsheets (which will be emailed to each participant upon completion of the program).

The program focuses upon the individual, their internal processes, self empowerment and self-accountability regarding safety. It is designed to provide the participants with practical insight into how their brain works. This will empower team members to make better decisions and to allow them the option of changing the way they respond to their world, particularly in regards to safety. There are significant opportunities for learning through practical and purposeful activities. The Teams program is experientially based, highly interactive, informative and interesting to participants.

Objectives include:

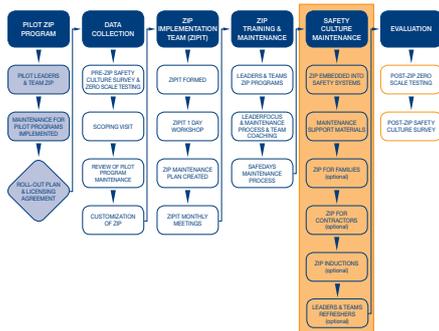
- How my brain works and how I can use it to keep myself safe
- How our belief systems and attitudes are formed and how they affect our safety
- Five thinking patterns shown through psychological research to increase personal safety

The Teams program is also designed to enhance learning for the participants. It focuses on embedding the learnings in a work context through hands-on activities.

SafeDays Maintenance Process

SafeDays is the Team's process for maintaining and embedding the BIG5 Safety Attitudes. SafeDays for teams is a daily process that draws people's attention to the BIG5 Safety Attitudes that drive their behaviours and ultimately produce safe results in the team on a daily basis.

The SafeDays process takes approximately five minutes at the start of the shift/work day. SafeDays is a systematic process usually guided by a SafeDays Board. This works by firstly reviewing the previous shift and then planning for the coming shift. Our experience teaches us that most lost time incidents have an indicator present in one shift period prior to the incident. In SafeDays, the previous shift is analyzed and learnt from, and then a plan for the coming shift is set. To maintain the variety and interest in the process, each shift has a "Focus Statement" which is a daily activity or task concentrating on one of the BIG5 Safety Attitudes and one of the Brain Tools. Each shift starts with a different Focus Statement.



Safety Culture Maintenance Phase

As you would be aware, unless the information learnt during ZIP programs is reinforced in a systematic way, a significant amount of the information learnt is lost over time. This reduces the return on investment for a business. The Safety Culture Maintenance Phase is designed to alleviate this and provide your business with the best possible return on your ZIP investment.

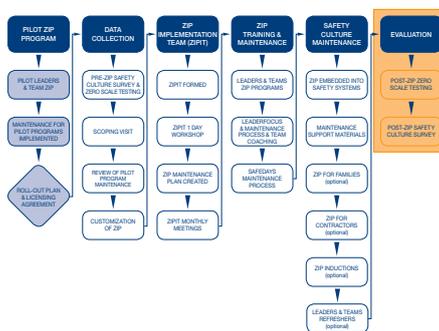
The Safety Culture Maintenance Phase works in two ways:

- It provides a regular refresher of the important information shared during the ZIP Programs. These refreshers are designed to work along side the RAS cards and build on the natural associative learning techniques the human brain prefers.
- It gives daily practical applications of the information shared in ZIP. It gives the opportunity to practice the new skills and ideas learnt.

We will work closely with you to customize a maintenance process that is best suited to your organization. Our Sentis Psychologists and Safety Professionals will have established a maintenance plan with you well before the first ZIP programs are rolled out to your organization. The ZIP Implementation Team will be key contacts for Sentis Psychologists and Safety Professionals to work with to customize the ZIP concepts into an effective maintenance plan for you.

Some of our established maintenance processes we can talk with you about are:

- LeaderFocus process
- SafeDays process
- ZIP Safety Contact Cards
- ZIP Well-being Token Cards
- ZIP Posters
- ZIP Coaches
- ZIP Personal Big 5 initiatives
- ZIP for Families
- ZIP for Contractors
- ZIP Inductions
- ZIP Teams and Leaders Refreshers



Evaluation Phase

Once ZIP has been rolled out within your organization, a smaller sub-sample of employees (minimum of 30%) can complete the ZERO Scale assessment tool so that you can conduct a thorough pre- and post- assessment of the impact of ZIP on your employee's safety attitudes. You will be provided with an overall aggregate report of the results of the pre- and post-ZIP assessments.

Additionally, we suggest that you conduct a further ZIP Safety Culture Survey to enable an extensive post-process assessment to determine the impact of ZIP within your organization at a broader level.



ZIP for Well-being

There are two versions of the ZERO Incident Process – ZIP for Safety, and ZIP for Well-being (ZIP-W). Although the process outlined within this document describes the Safety version, ZIP-W is based upon the same underlying concepts and follows a similar progression of roll-out phases. It is ideal for those staff in your organization who may be office based or in support roles.

We define well-being as a state where a person is experiencing success and happiness at work and in their life through their own efforts. We view choice as the essential ingredient in well-being.

Just like ZIP, ZIP-W is a psychologically-based process designed to empower people to be able to take control of their personal choices. It provides people with insight into the way their brain works, their thinking, their attitudes and values. It offers people the tools to take control of their thinking and feelings; and thus the results they get in their life, especially regarding happiness and success. ZIP-W empowers people through choice.

The same four areas relevant to a company's Safety Culture can be invested in for well-being:

1. **Environment** – including ergonomics, equipment, interior design, signage, and lighting
2. **Practices** – policies and procedures, guidelines, performance management, incentives, feedback & coaching
3. **Person** – attitudes, motivation, professionalism, knowledge and skills
4. **Leadership** – leadership's attitudes towards the well-being of people, communication style, language, knowledge and skills

Just like ZIP, ZIP-W focuses on the Person and Leadership components of the Wellness Culture within a business, and works alongside the Environment and Practices components. ZIP-W focuses on providing people with information about the “why” of well-being through an understanding of the brain - the human machine that directly and indirectly determines how “well” a person is. Importantly, it focuses on providing practical and effective skills to make helpful choices in the workplace and at home.

ZIP-W addresses the same attitudes as ZIP-Safety Control, Risk Awareness, Operating Attitude, Stress Management, Professional Orientation and applies examples more suited to office based staff rather than those working in the field.

When it comes to the maintenance process, instead of SafeDays, ZIP-W utilizes GreatDays to keep the learnings alive and effective. GreatDays is a structured process that effectively reviews and reinforces the ZIP learnings every day. It also focuses the minds of people at the start of each work day or work week, encouraging the choice to have a “great day” at work. GreatDays is a highly flexible process that can be tailored to fit the needs of any organization.

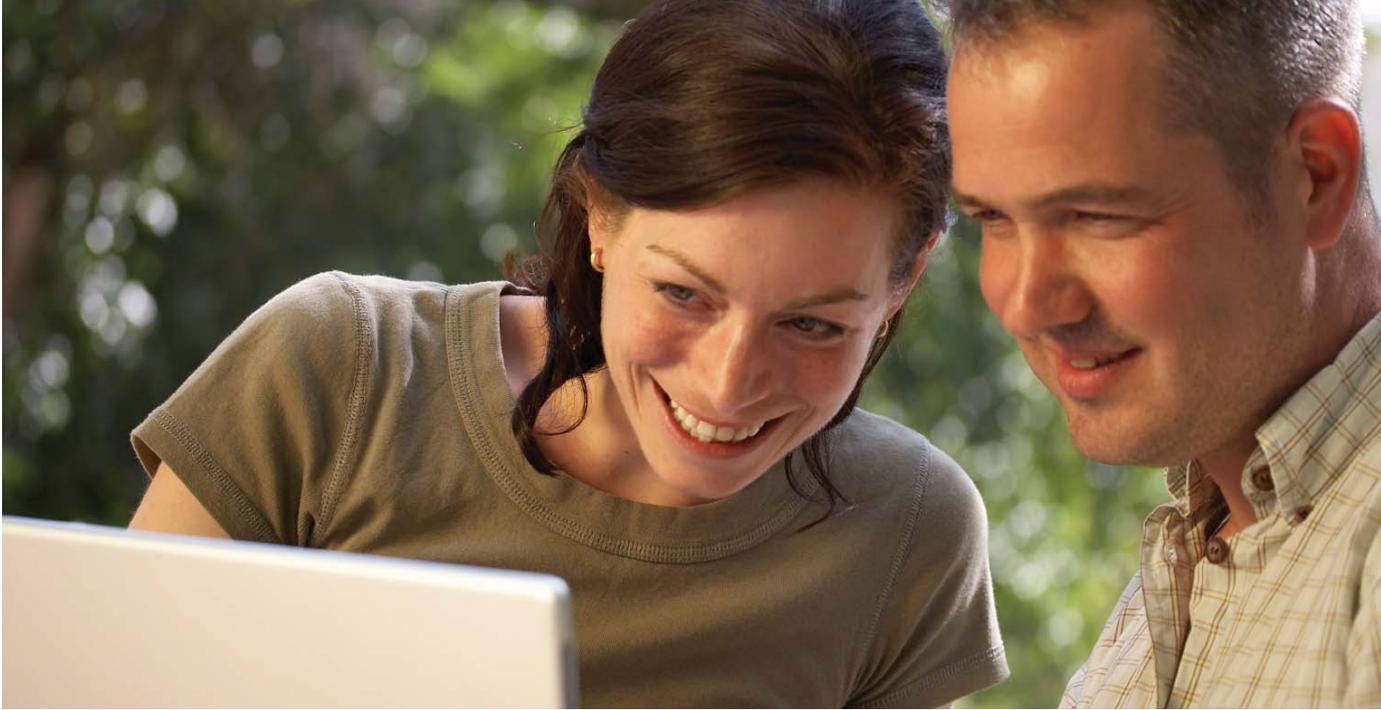
Does it Work?

ZIP has several observable outcomes. Firstly, ZIP provides the entire workforce with the same “apprenticeship” in the brain and thereby creates a common language. Individuals can use the same words, regardless of education or experience, to understand key safety concepts. A culture unique to the business is created via this shared communication.

Secondly, ZIP makes safety interesting as well as important by genuinely empowering individuals to understand the difference between safety as a cost and a currency. Safety as a cost focuses on safe behaviours taking time and energy, and slowing production. Safety as a Currency focuses on safety as an investment in family, friends and life. Participants are actively and directly encouraged to take accountability for their safety choices, including the consequences of unsafe choices.

Thirdly, active caring is promoted within teams and by leaders. Active caring is about putting a high value on safety and building this value into the everyday practice of individuals and organizations. Individuals can become leaders in creating a culture of safety within the business. Active caring is displayed when individual workers can raise the issue in meetings or training sessions, or privately in meetings with others, particularly those in leadership.

Lastly, ZIP provides individuals with skills that can be used outside of work. One of the true markers of safety excellence is a worker who applies the knowledge and skills at home. One of the key reasons ZIP is so widely accepted by the workforce is because of its applicability to home experiences. One of the indirect benefits of ZIP for a business is that its workers are better equipped to deal with stress at home and hence are better able to focus at work.



Research and Results

■ Case Study 1

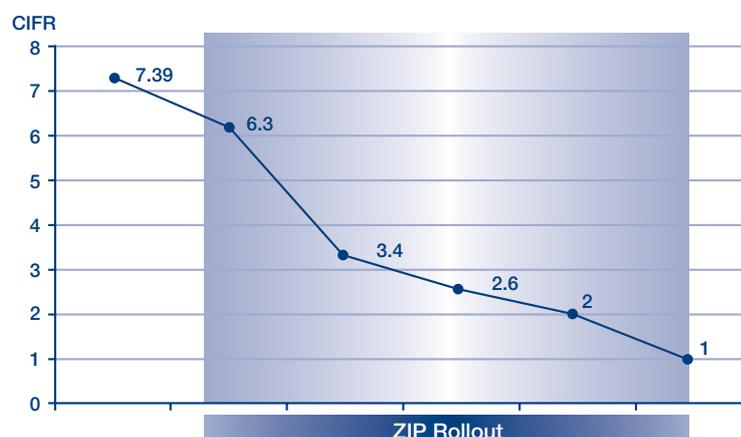
Method

ZIP programs were rolled out in an open cut diamond mine in Canada. Given the size of the site (approx. 2200 personnel) and the seasonal restrictions on the process (programs could only be conducted during the winter months), a very structured and methodical approach was adopted for the ZIP process and roll-out. This meant that each individual business unit completed their ZIP programs and embedded the maintenance process before further ZIP programs were initiated with the next business unit.

Results

In the 4 years prior to ZIP, the classified injury frequency rate (CIFR) averaged 11.8 (with a CIFR of 7.39 in the year preceding ZIP). This dropped to 6.3 in the initial stages of the roll-out and further to 3.4 and 2.6 as the roll-out progressed. Indeed, in the latter two years of the roll-out, the CIFR rates dropped to approximately 2 and 1, when people who had not yet experienced ZIP were excluded from the analysis.

CIFR before and throughout ZIP rollout



Case Study 2

Method

A full roll-out of ZIP was completed over a five month period at an Australian open cut coal mine. Of the 120 site personnel, 106 attended ZIP programs before the ZIP maintenance process was introduced.

Results

Data for injuries occurring 8 months pre-implementation of ZIP was obtained in addition to injury data occurring 8 months post the roll-out of ZIP.

In the 12 months prior to ZIP, the team had experienced 12 injuries including 8 lost time injuries (LTIs). On average, the team (which was isolated from other interventions on site such as safety programs) reported 9 LTIs each year for the previous 3 years. Twenty months later, after the introduction of ZIP, no member of the team had been injured.

All injury frequencies decreased following the implementation of ZIP. The greatest decrease was evidenced for LTIs which were down 100% post training, with restricted work injuries reduced by 66%, with the total number of injuries down by 83.3% post ZIP.

Case Study 3

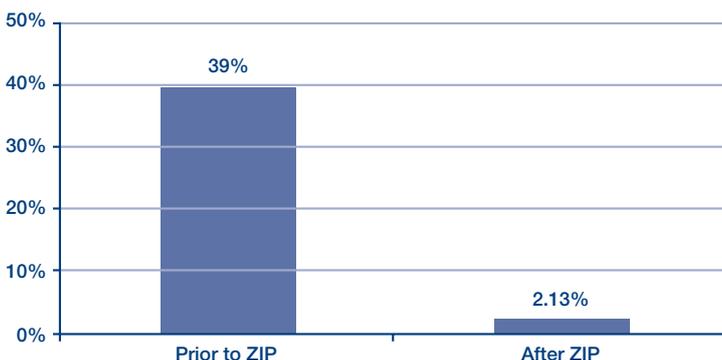
Method

ZIP was rolled out over a 24 month period at an Australian surface bauxite mine. During this period a total of 235 personnel attended one of 16 ZIP programs on site.

Results

Prior to the implementation of ZIP, 39% of attendees had been involved in person related safety incidents, however since completing ZIP, only 2.13% of attendees recorded a person related safety incident. While there was an overall decrease in the number of person related safety incidents in both ZIP and non-ZIP trained personnel, the percentage decrease in ZIP participants was 95% compared to only a 53% decrease in non-ZIP participants.

ZIP Attendees involved in person related safety incidents





■ Case Study 4

Method

ZIP was rolled out to a select team of Apprentices at an Australian surface bauxite mine. The team of Apprentices was isolated from all other interventions on site.

Results

In the 12 months prior to ZIP, 12 of the Apprentices had experienced injuries (i.e. all injuries excluding First Aids), with 9 LTIs being recorded each year for the previous 3 years. 22 months post-ZIP training, no member of the team had been injured.

■ Case Study 5

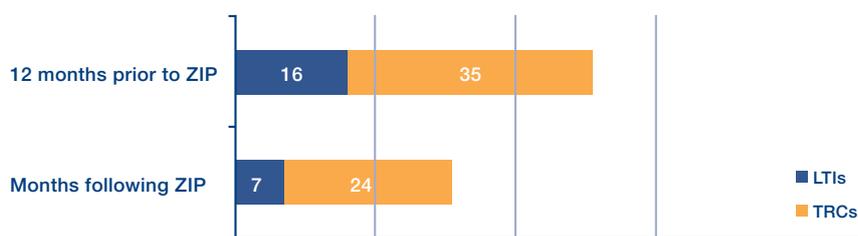
Method

ZIP was rolled out across an underground Australian coal mine consisting of approximately 400 employees over a 7 month period.

Results

In the 3 years prior to ZIP, the site had evidenced a trend of increasing harm to its people, with rising incident and LTI rates. In the 12 months prior to ZIP 16 LTIs and 35 Total Recordable Cases (TRC) were recorded. In the months following the ZIP roll-out, a 55% reduction in LTIs, 31% reduction in TRCs, and a 118% increase in the number of hazard reports was achieved.

LTIs & TRCs before and after ZIP



Case Study 6

Method

In relation to ZIP's efficacy at sites already operating with very low injury rates, ZIP was commenced at a large aluminium smelter in New Zealand which had demonstrated a steady history of safe operations and very low injury frequency rates.

Results

The LTIFR for the smelter in the 4 years prior to ZIP showed evidence of a strong plateau ranging between 0.4 and 0.54 (Year 1, 0.5; Year 2, 0.4; Year 3, 0.45; Year 4, 0.54). Consistent with that for the previous study, the roll-out of ZIP has been conducted very methodologically with maintenance processes being introduced on the back of the formal ZIP training. As a result, at 66% complete, the LTIFR rate has dropped to 0.21, with all injuries being experienced by non-zipped personnel.

LTIFR before & after ZIP



Case Study 7

Method

ZIP has also been utilized to great effect in large energy companies. During the ZIP roll-out it was not possible to isolate business units from all other safety interventions, nor use control groups for comparison. Therefore, while ZIP was the major safety initiative for the company, it was not the only one, and so all results reported represent the total change in injury rates. Its inclusion here offers an opportunity to examine ZIP's 'real world' efficacy within the total safety journey of such a large and diverse business.

Results

Since beginning ZIP, this energy company has moved 11 places in its country based LTIFR rankings; from ranking 12th to being the number 1 ranking company among the 16 energy companies included in the measure. Recently, their LTIFR has declined from 2.01 to 0.44 as more business units complete the ZIP process, while their AIFR (all injury frequency rate) has dropped 83% from 9.86 to 1.60 (based on LTIs and MTIs per one million person hours worked).



■ Case Study 8

Method

A national call centre in Australia, with 152 employees (full-time and part-time) rolled out ZIP for Well-being. There were six objectives set:

1. Improve relations in the workplace and at home
2. Improve stress management
3. Increase productivity and enhance job performance
4. Enable employees to truly live the business values
5. Lower costs from workers' accident and injury claims
6. Decrease absenteeism

Results

Pre- and post- data was collected from both qualitative and quantitative sources, internal and external to the organization. Data sources included hard measures (KPIs), psychometric data and feedback report data from participants and Leaders.

Following ZIP-W roll-out, participants reported an increased ability to manage their relationships both in the workplace and at home, with a 13% increase in the ability to manage stress. Increased productivity and job performance was observed with all KPIs consistently above 95%. There was a 66% decrease in workers accident and injury claims during and post ZIP-W roll-out compared to previous 6 months.

Within 6 months of the completion of the roll-out the call centre won a national award for best call centre over 120 people.

Does ZIP Work Everywhere?



The key ZIP learnings are based on core features of all people – i.e. developing an internal reason/motivation to make safe choices and understanding how the human brain works and how it can be controlled better to assist individuals to stay safe. Habituation and complacency, short-cuts, inadequate risk assessments, avoiding responsibility, not speaking up, and ‘tunnel vision’ feature in safety incidents around the world. These elements are driven by the basic hardwiring mechanisms of our brain, and hence the foundations of ZIP remain equally relevant to all cultures. These issues transcend cultural boundaries provided it is presented in a culturally appropriate and relevant way.

Consistent with this, our experience in working with a wide variety of populations from a number of countries suggests that all participants find the content relevant to their lives and safety regardless of where they come from or how they see the world.

The ZIP concepts and fundamentals are easy to grasp, and easy to apply to ‘real-life’ examples. The presentation of these concepts is readily modified so that they can be explored in a practical fashion. ZIP training is very experientially based and does not require people to have formal education.

During the Pilot Programs and Data Collection phases of the ZIP process, Sentis Psychologists and Safety Professionals work with our clients to customize ZIP in a way that suits the culture we are working in. Some of the issues we address at this stage include: the organizational/business unit culture; forms of cultural diversity within the organization; implications for design and delivery of the program and customization of materials/activities. We put considerable effort into ensuring that any ZIP roll-out takes these essential issues into account.

The ZIP Implementation Team (ZIPIT) will also have a role in monitoring feedback and ensuring that programs are addressing the needs of the organization, including cultural.

A Commitment to Enhance Safety

As we have indicated, ZIP is a serious, psychologically-based process designed to implement genuine change in Safety Culture and performance. Change of this nature happens in a controlled and gradual manner; in Safety Culture change there is no such thing as a quick fix. ZIP is NOT a quick fix for safety or well-being – it is a systematic process that takes a serious commitment from a mature business leadership. We ask you to be aware that it is a process designed for sites with leadership that have a genuine commitment to their people and their business.

To deliver the ZERO Incident Process, your business must be prepared to “do things differently” and invest the energy to achieve change. You as a leadership team will need to be 100% sure this process is for your business and fully support its implementation.

Depending on the specific challenges facing a business or site, ZIP will be tailored and customized to address any person-based safety issue.

It takes significant resources for ZIP to be able to achieve the results that it does – it is not simply a training program. We are committed to providing your business with tools proven to enhance its safety. We recommend that when you undertake ZIP you do so in line with the structure we have suggested. Our experience in this area has shown us that this controlled multiphase approach will offer you the most assistance with your safety performance.

Sentis shares with you a commitment to enhance the safety and success of your workforce through the genuine empowerment of the individuals that make up your organization. We will commit to hold regular conversations with you to give and receive feedback and to deliver the ZERO Incident Process and all its components to the highest level. We look forward to working with you.

If you are interested in hearing more about what ZIP might look like within your organization, please contact the Sentis Office in your area and we'll be very happy to help you.

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