

## Group work activity: SWOT analysis<sup>1</sup> of the CSP industry in South Africa

### Educator's notes

- 1. Learning objective:** To understand how South Africa **can** become a world leader in the concentrated solar power (CSP) industry, by using SWOT analysis. This is an opportunity for the learners to take an active role in the learning process through group discussions and decision-making processes using minimal material. This exercise will develop skills of data analysis and problem solving.
- 2. Material required:** Each group of four learners must have the following:
  - Handout of the 16 findings that form part of the SWOT analysis
  - A pair of scissors
  - Glue sticks
  - An A3 page that they divide into the following matrix:

<b>Strengths</b> (positive characteristics of CSP industry)	<b>Weaknesses</b> (negative characteristics of CSP industry)
<b>Opportunities</b> (external factors that may support the strengths of CSP in RSA)	<b>Threats</b> (potential problems or risks that could prevent CSP in RSA from reaching full capacity)

### 3. Explanation:

In a recent study<sup>2</sup> undertaken to assess the manufacturing capabilities and potential of South Africa becoming a leader in the CSP industry, a SWOT analysis was undertaken. The findings of the analysis indicate that should the weaknesses and threats be addressed, this dream can be possible. The learners' first task is to cut out the 16 findings of the SWOT analysis and group them into strengths, weaknesses, opportunities and threats. This should take 20 minutes.

A group spokesperson is then chosen to report to the class why they have placed the different findings in each category. You will notice that the groups may differ in their analysis. Allocate two to three minutes per group and then reveal to the class the results of the actual SWOT analysis in the SASTELA report. Maintain strict rules during the feedback session to strengthen their listening skills.

Finally, each group chooses one weakness and one threat to the CSP industry and then suggest solutions to these problems.

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<sup>1</sup> A SWOT analysis is an internal study that is used to understand the strengths, weaknesses, opportunities and threats of an organisation or venture.

<sup>2</sup> Reference: Assessment of the localisation, industrialisation and job-creation potential of CSP infrastructure projects in South Africa – A 2030 vision for CSP ([www.sastela.org](http://www.sastela.org)).

## Original SWOT analysis results<sup>3</sup>

### Strengths

- Strong local construction companies
- Local production of equipment (steel pipes) meets international CSP standards
- Strong skills and experience in mining, which can be transferred to CSP industry
- R&D (research and development) activities support new local technology

### Weaknesses

- Lack of suitable skilled labour
- High local transport costs from the harbour to the Upington site
- Unproductive labour force
- High costs of local raw material (steel and glass)

### Opportunities

- RSA has one of the highest direct normal irradiation (DNI) levels in the world
- CSP can lead the way for renewable energy to replace coal
- RSA consumers demand cheaper energy
- Local businesses can manufacture mirrors

### Threats

- Competition with suppliers from other countries where local wages are lower
- Insufficient funds for R&D
- High water usage and lack of water in South Africa
- Difficulties in obtaining finance to fund CSP investments

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<sup>3</sup> Reference: Footnote 2

Local production of equipment (steel pipes) meets international CSP standards	Competition with suppliers from other countries where local wages are lower
Local businesses can manufacture mirrors	Lack of suitable skilled labour
Unproductive labour force	High costs of local raw material (steel and glass)
RSA consumers demand cheaper energy	Strong local construction companies
Insufficient funds for R&D	High water usage and lack of water in South Africa
RSA has one of the highest DNI levels in the world	Difficulties in obtaining finance to fund CSP investments
CSP can lead the way for renewable energy to replace coal	High local transport costs from the harbour to Upington
R&D activities support new local technology	Strong skills and experience in mining can be transferred to CSP industry