

Update on SASRA activities for 2011/2012

Presented by:

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3rd Joint SRR/PTMSS

6 June 2012



Vision

When it happens, we will be there



SASRA

- *19 Feb 2011*
Signed constitution as voluntary association
- *20 June 2011*
Presented foundation at PTMSS/SRR
- *6 March 2012*
Legalized as Non-Profit Company



Planned projects presented in 2011

| Project | Status |
|---|-----------------------------------|
| Structural lunar soil simulant | Delayed pending prototype lunabot |
| PISCES student design | Shelved |
| NASA lunabotics | In progress |
| Paper on lunar mine design, possibly sand mining | Completed |
| Paper on evaluation of pneumatic excavator | Shelved |
| Mining innovation overlap | Restructured |

Objectives

| Objective | Success count |
|----------------------------------|----------------------|
| 1) Awareness | 5 |
| 2) Technical contribution | 3 |
| 3) Education | 2 |

Technical contribution since PTMSS/ SRR 2011

- RobMech 2011 paper: “*Space Mining Application for South African Mining Robotics*”
- AIAA 2012 paper: “*A Mining Engineering Approach to Mining Lunar Regolith*”
- SRR/PTMSS 2012 paper: “*Terrestrial Mining Applications for Lunar Regolith Excavation Robotics*”

Awareness since PTMSS/SRR 2011

- Republished “*Space Mining Application for South African Mining Robotics*” in EngineerIT, May 2012
- 2x *Mining Weekly* mentions (1 September 2011, 10 February 2012)
- *Hosts >1 event per month*
- *Social media for awareness (Facebook, Twitter)*

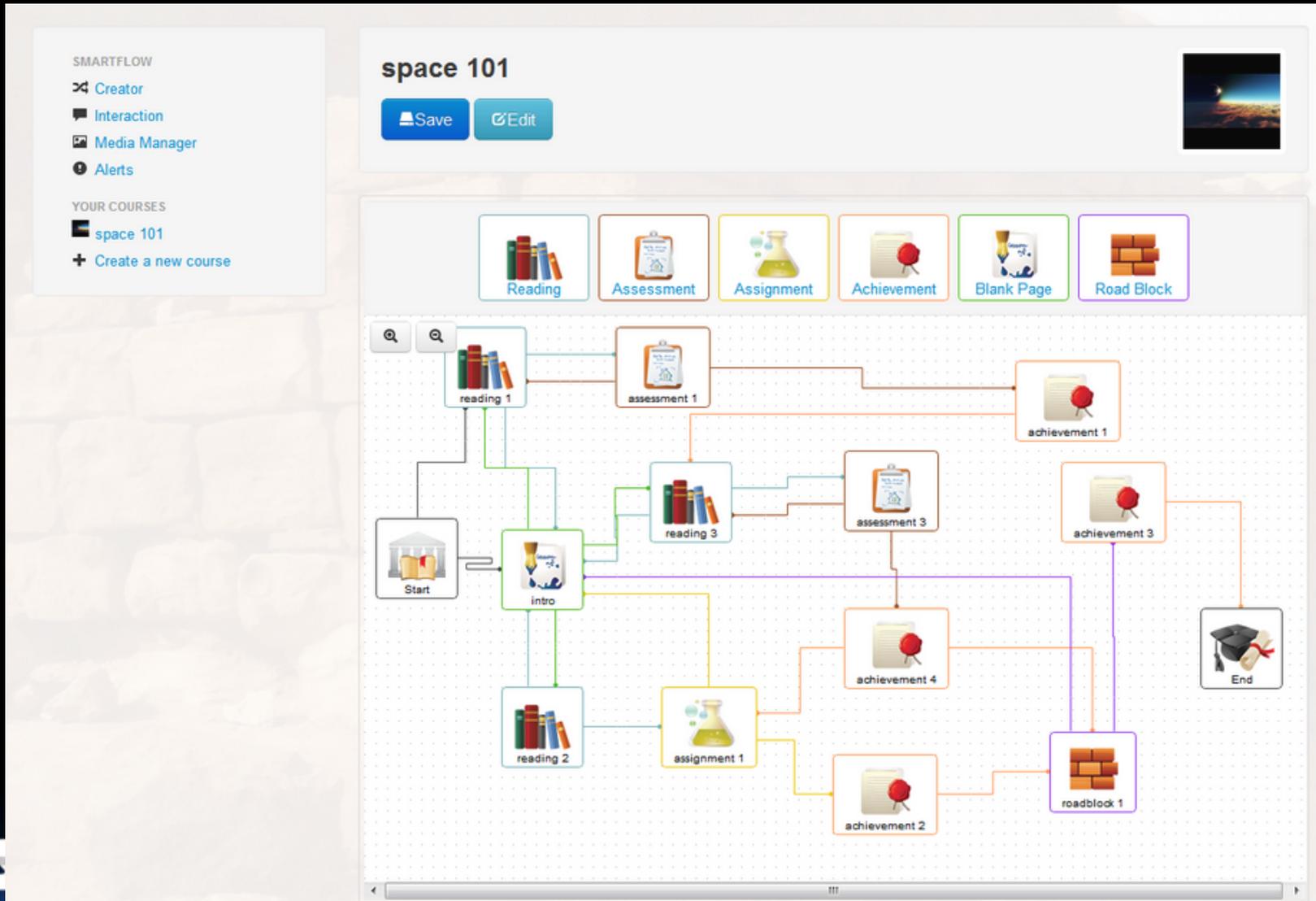
Education since PTMSS/SRR 2011

- Application Sponsor for *NASA Lunabotics* (*Google Play, Facebook, Desktop, Web*)
- Space, mining and robotics evening in collaboration with *PISCES, IEEE and CSIR*

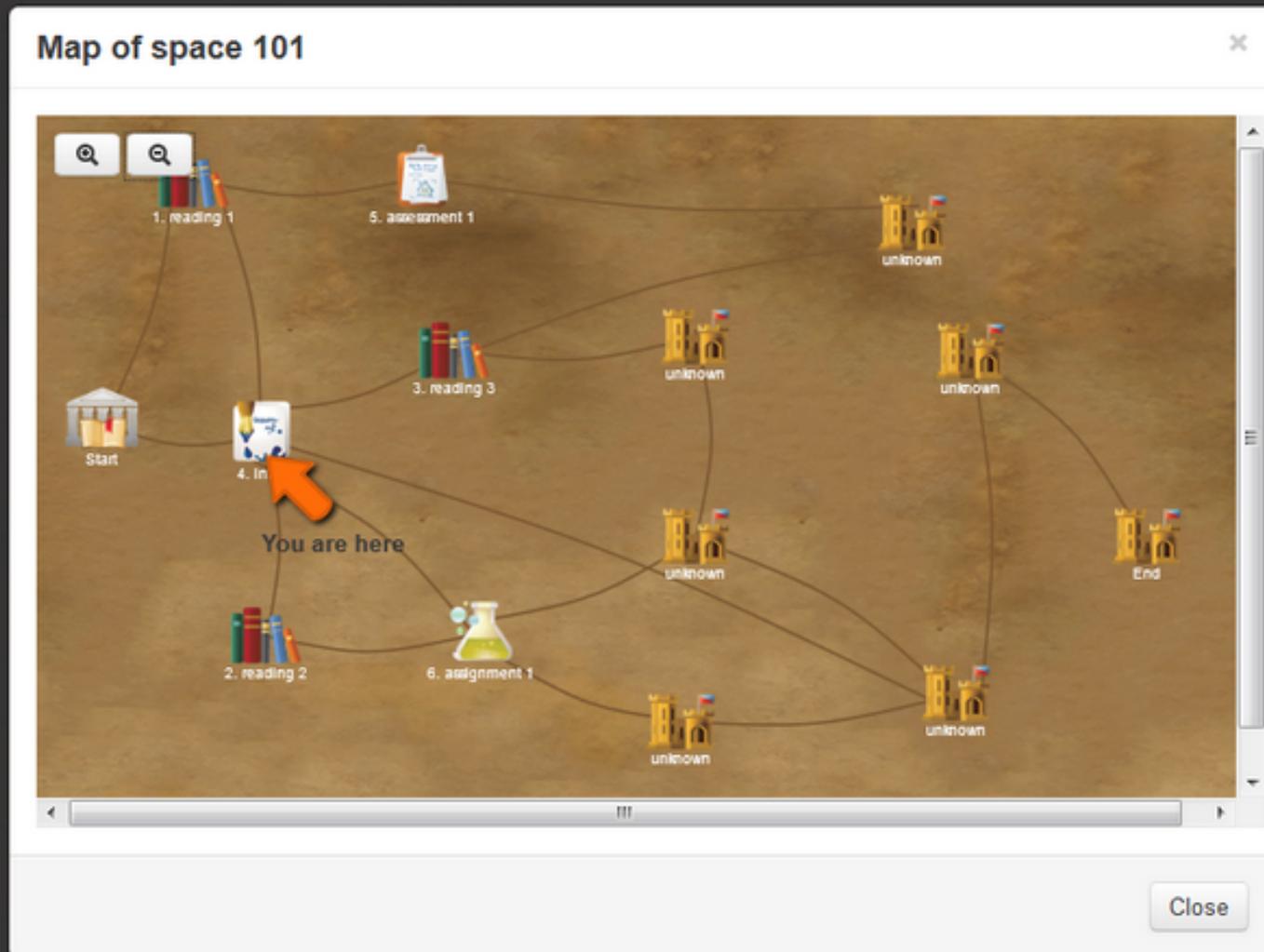
Projects

- *Lunabotics app v2.0*
- *Lunabot*
- *Earth application*
- *Space Mining Wiki*

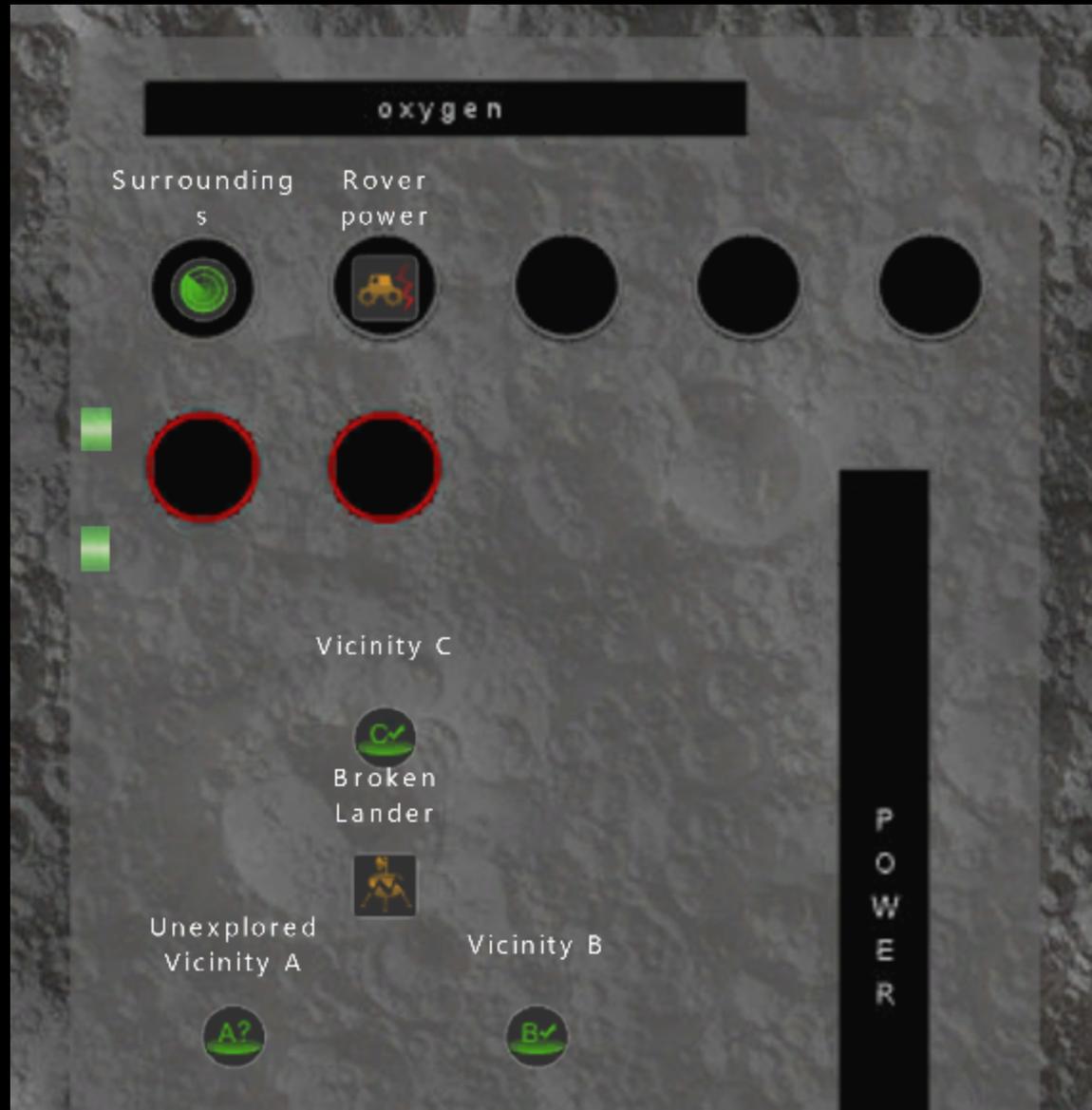
African Mobile University



African Mobile University



Ore genesis



Challenges

- *Time (voluntary part time company)*
- *No remuneration for people doing work*
- *Little money to invest in projects*
- *Lack of member involvement*
- *Lack of members benefit*

Solution?

- *Followers instead of members (no explicit benefits or involvement)*
- *Open for general donations*
- *Project specific donations (real work only when minimum funds is achieved)*
- *“Work fees” in minimum funds (monetary benefit for doing work)*
- *Focus on projects that could return money*

Conclusions

- *The past year was successful*
- *Exciting time ahead*
- *Challenges foreseen, possible solution proposed*

Thanks to mentors

- Angel Abbud-Madrid
- Dale Boucher
- John Hamilton
- Kris Zacny
- Leslie Gertsch
- Rob Mueller

Questions?

Advice?