SHE SPACE INTERNATIONAL

In memory of Devorah Blumberg

FACILITATING ACCESS TO ACADEMIC SPACE EDUCATION & STATE OF THE ART TECHNOLOGIES

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BACKGROUND & MOTIVATION

Modified after Adva Center based on CHE, Committee report, 2018

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CHALLENGE

Our approach to handle the challenge

Identify the Gap

Recognize the need for tailored pedagogic and learning content to meet the different learning styles and motivational needs of the female participants

PBL
(Project Based Learning)
"Hands-On"
RS\EO

Focus on practical issues rather than "pure" science exploration in **active research**

UN SDG'S
4, 5, 13 & 17

Toward Achieving United Nations SDG'S 4, 5, 13 and 17

CLIMATE CHANGE RESEARCH

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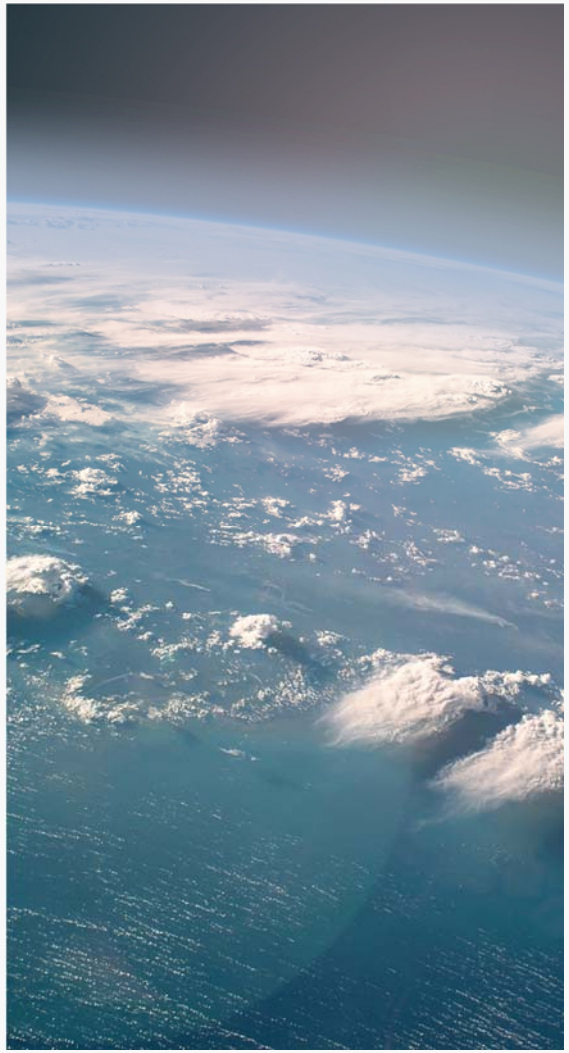
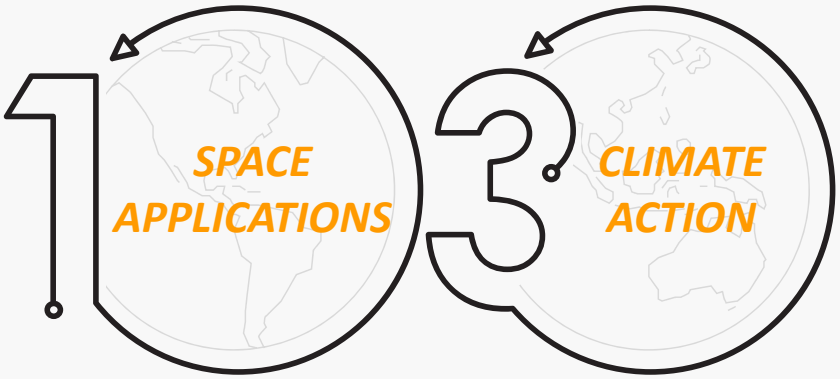
RESEARCH QUESTIONS – TARGETING CLIMATE CHANGE





- Use of local satellites – national level
- Beyond borders – GLOBAL PERSPECTIVE

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- Students experienced academic research, team work and international collaboration in an all-female setting designed to **empower** young women to continue in space science and research.

DLR_School_Lab

TEXAS TECH UNIVERSITY

UFRPE

בית יציב
חינוך • תרבות • אירוח

ISA
Israel Space Agency
סוכנות החלל הישראלית

GEOGRAPHY • GENERATION • GENDER

- Dedicated to the idea of diversity, worldwide high-school aged female students are mentored by professional female researchers women in the academy and space agencies.

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FRAMEWORK

Meetings at each facility

Meeting experts in the fields of satellite and space sciences

Learning remote sensing theory

Work in student-led research teams

“Hands-on” experience with real (in-use) scientific instruments

Student-planned research at every stage

Conference participation

Use of professional research equipment

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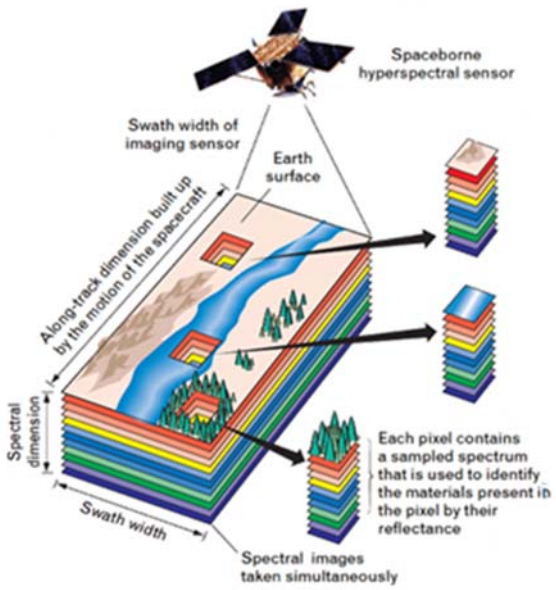
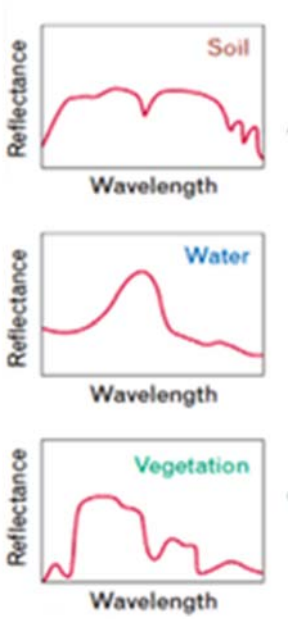
METHODOLOGY

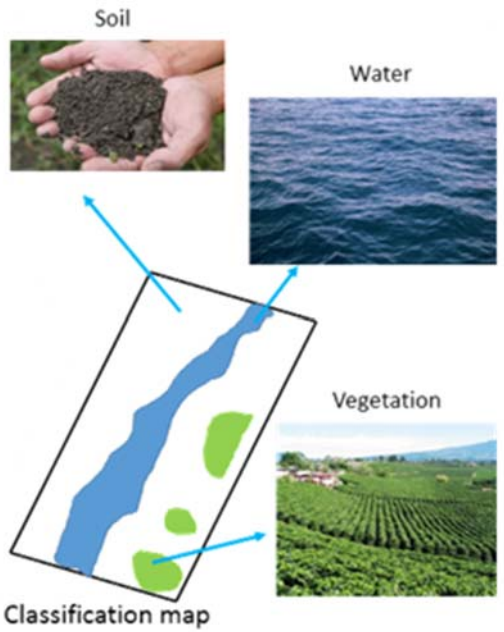
Image collection



Analysis according to phenomena



Interpretation



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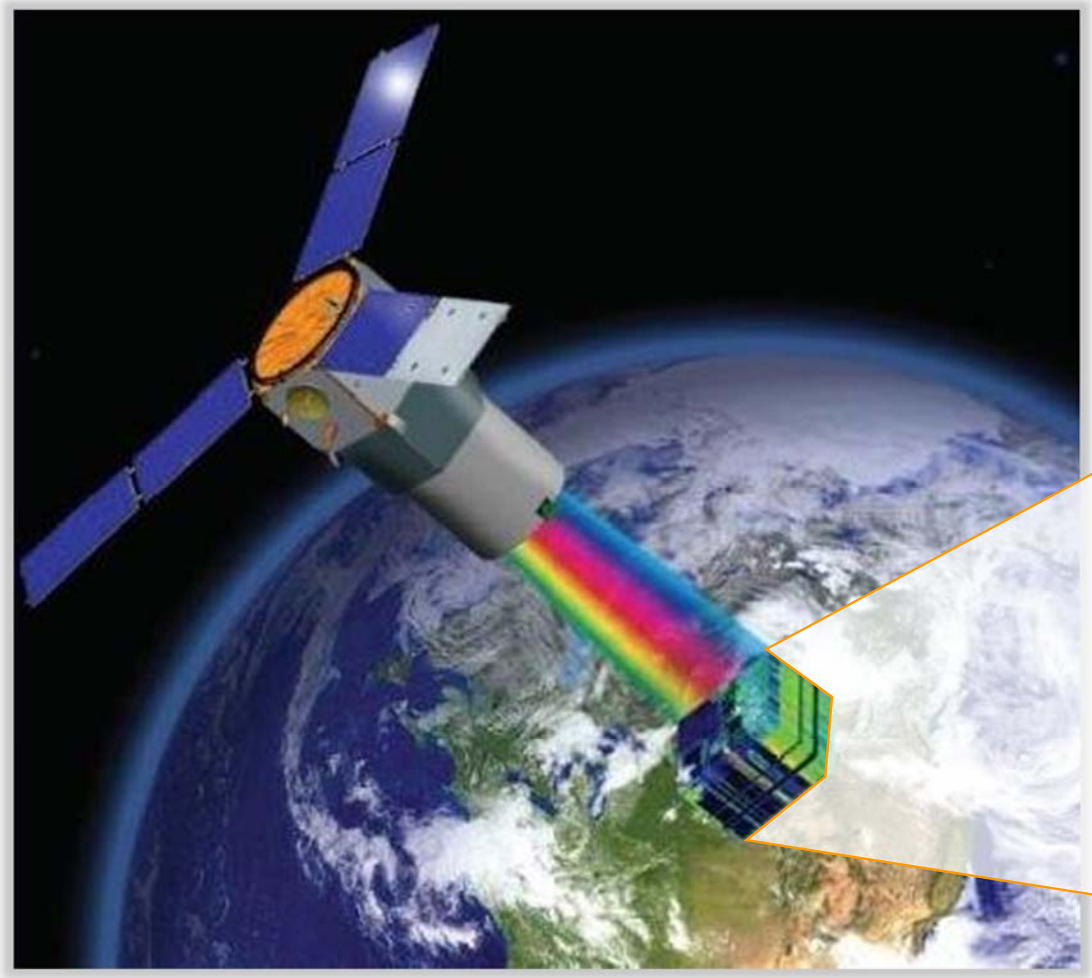
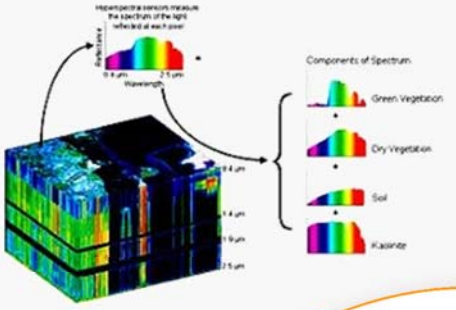
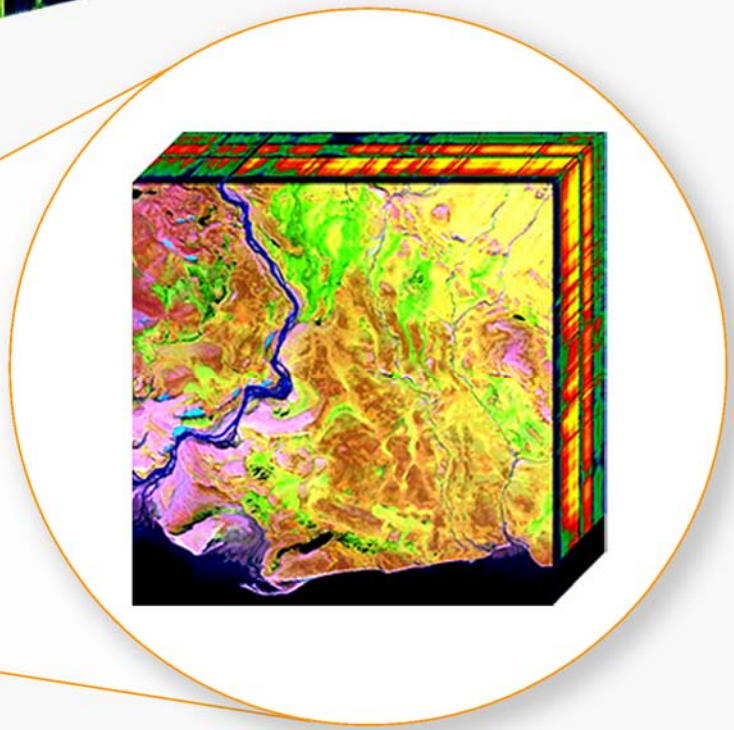
Multi-dimensional data, detection & classification







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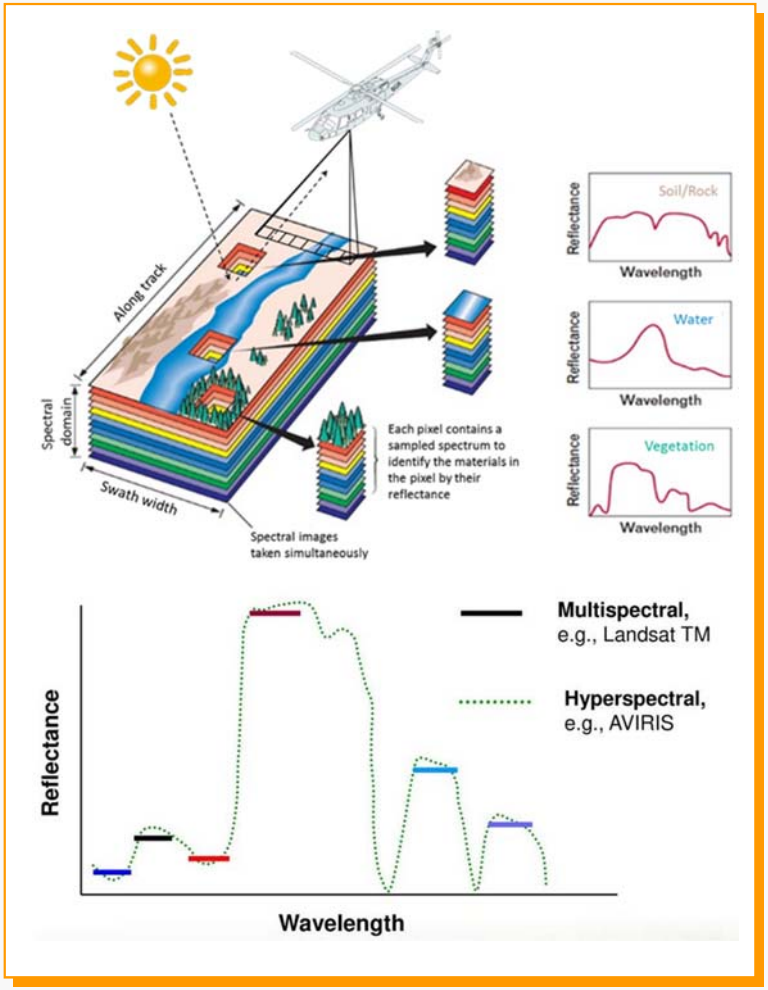
SATELLITE VS FIELD DATA



Difference between multispectral & hyperspectral sensing is:

- Number of Bands
- Narrowness of the Bands
- Multispectral data:
  5-10 bands of large bandwidths (70-400 nm).
- Hyperspectral data:
  100-200 bands of narrow bandwidths (5-10 nm)

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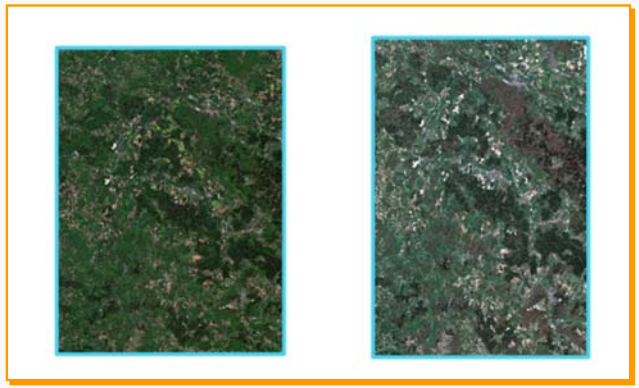
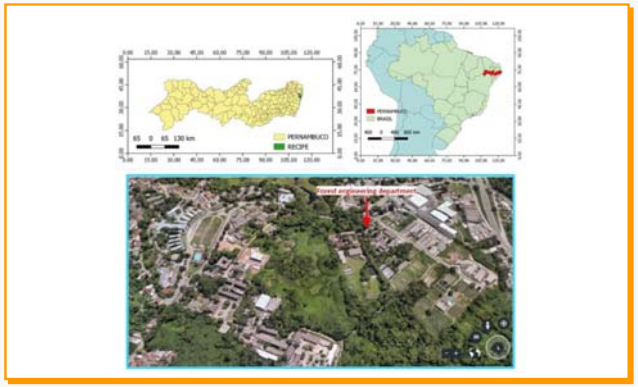
SHE SPACE RESEARCH RESULTS

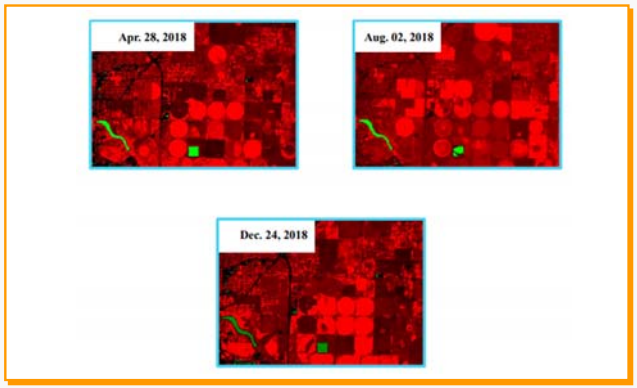
Snowpack development in the Bavarian Alps



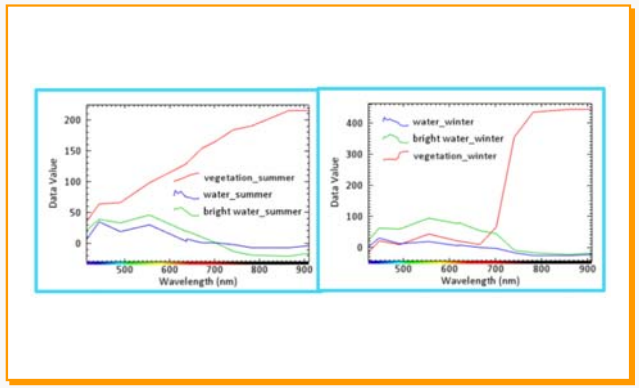
Detecting wildfire by satellites



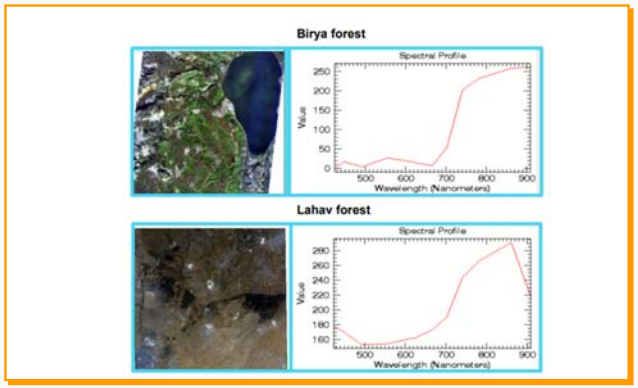
Preserving and restoring forests



Climate change influence on wheat growth



Water Availability and Quality



Effect of Climate Change on Water Resources

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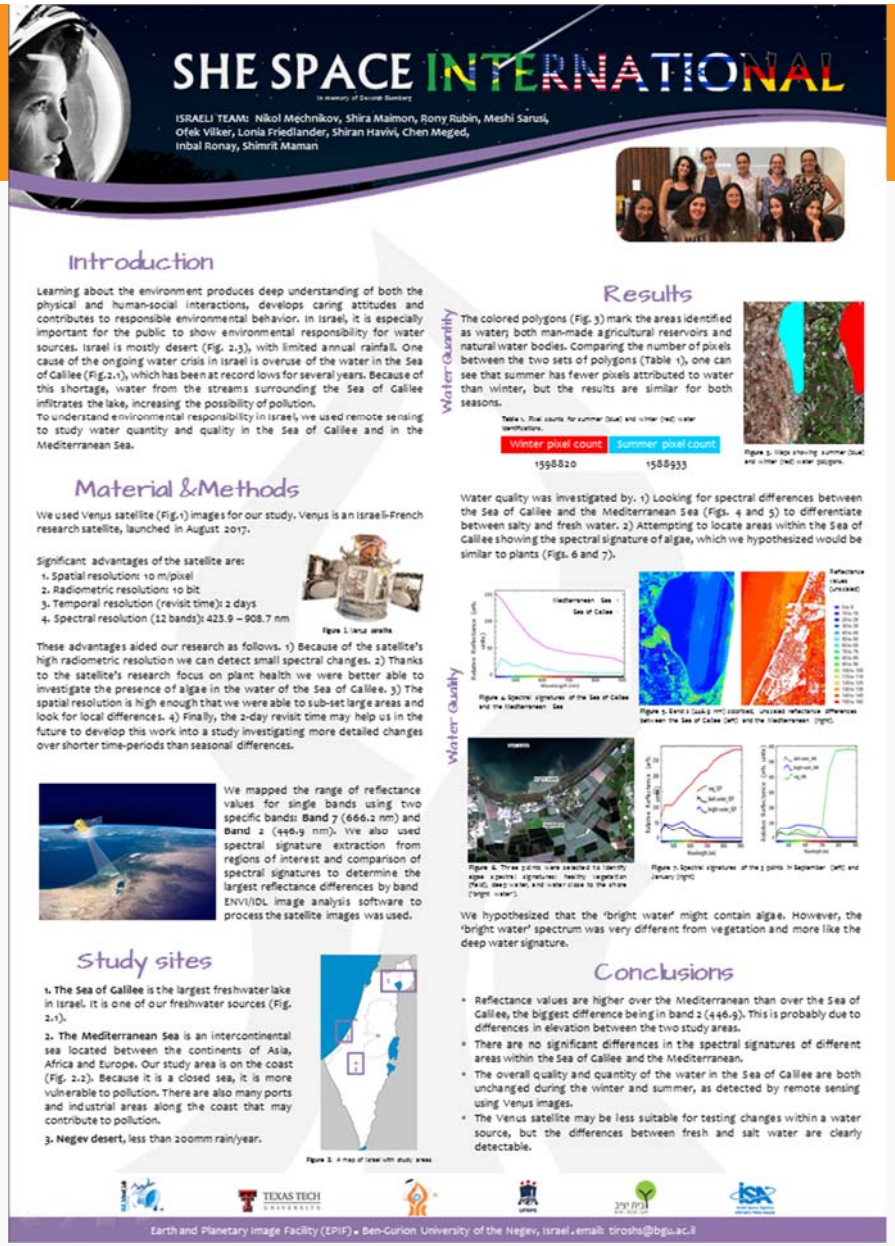
CLIMATE ACTION:
INTERNATIONAL GIRLS‘ SYMPOSIUM ON ENERGY AND RESPONSIBILITY



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CONCLUSIONS

TOWARD ACHIEVING UNITED NATIONS SDG'S 4, 5, 13 & 17

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WOMEN FOR SPACE & SPACE FOR WOMEN

Acting as ambassadors
for
Women in space science

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DANKESCHÖN | THANK YOU | תודה | OBRIGADO
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