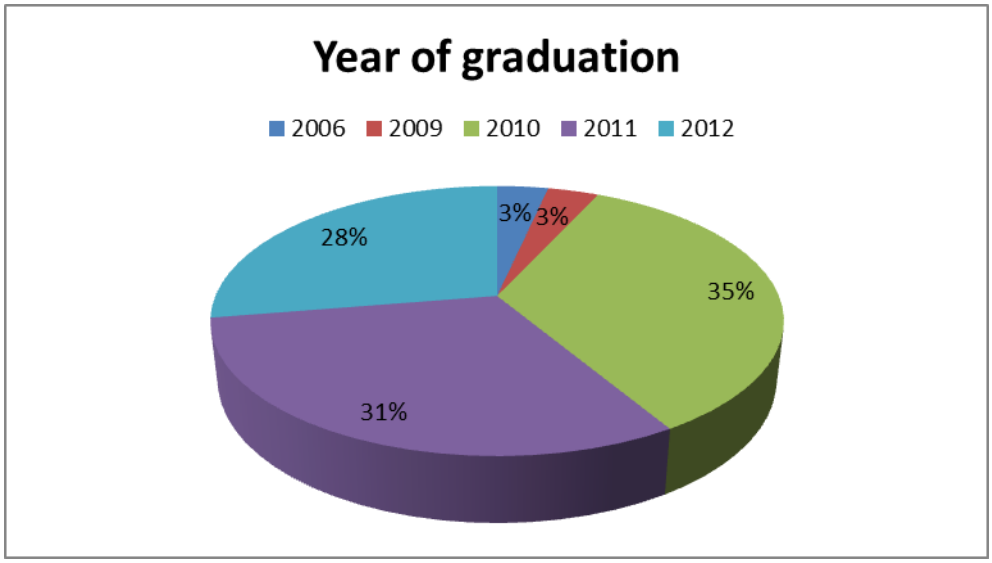
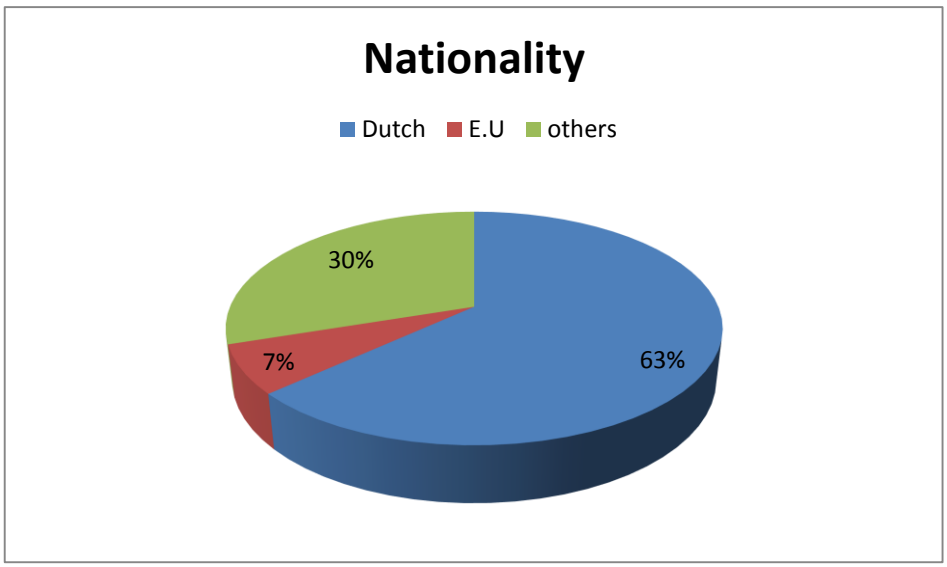
Understanding the Master "Sustainable Energy Technology"

Sustainable energy technology(SET) is a collaboration Master program between 3 Technical Universities in the Netherlands. The involved universities are TU Eindhoven, TUDelft and University of Twente. A survey on the study experience and future prospects from the program were long overdue. We from the AC-SET committee of TU Eindhoven(www.acset.nl) conducted this survey with the aim to clarify several questions of prospective and current students on the SET program. The results have been compiled based on responses from 30 SET alumni. For any queries on the survey contact v.a.rajkumar@student.tue.nl

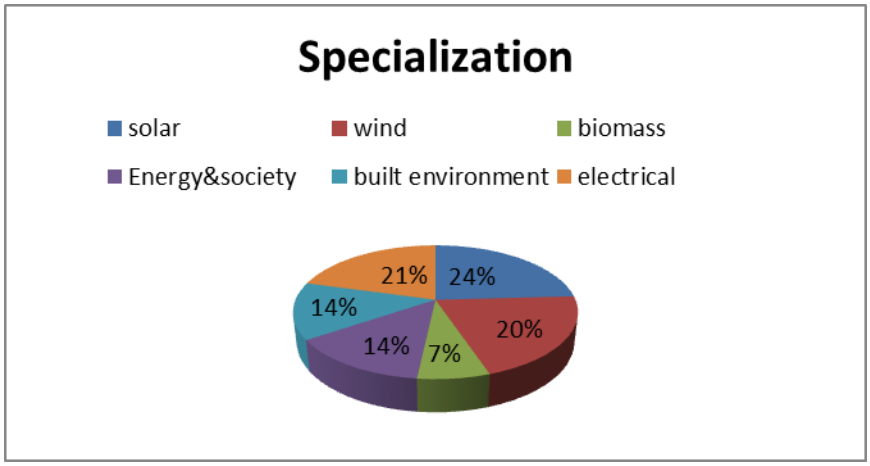
1. **When did they graduate?**



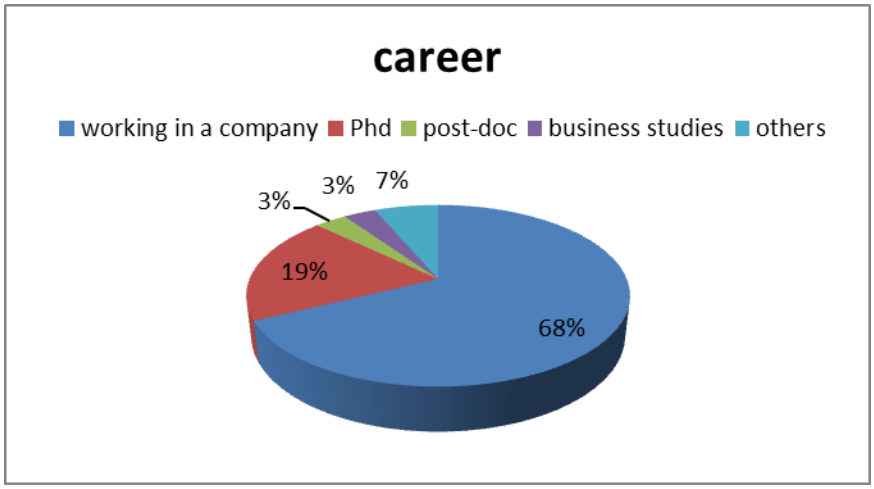
2. **Where did they come from?**



3. **What was their SET specialization?**

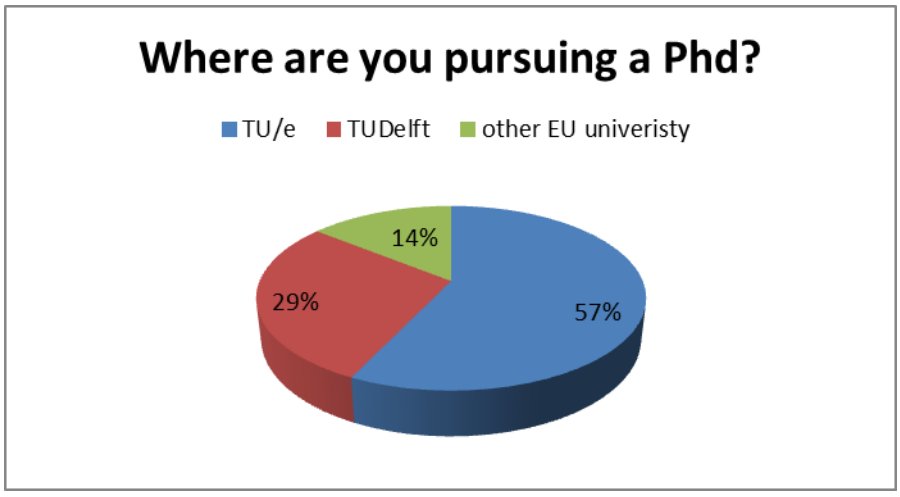


4. **What are they currently doing?**



Phd prospects

5. **Where are they pursuing the Phd?**



6. Examples of Phd subject areas

Torrefaction of biomass	Risk Governance
Smart Grids	Electrical power engineering
Energy Management Systems	Offshore wind
Energy and Economic Development	solar energy materials

Employment in a company

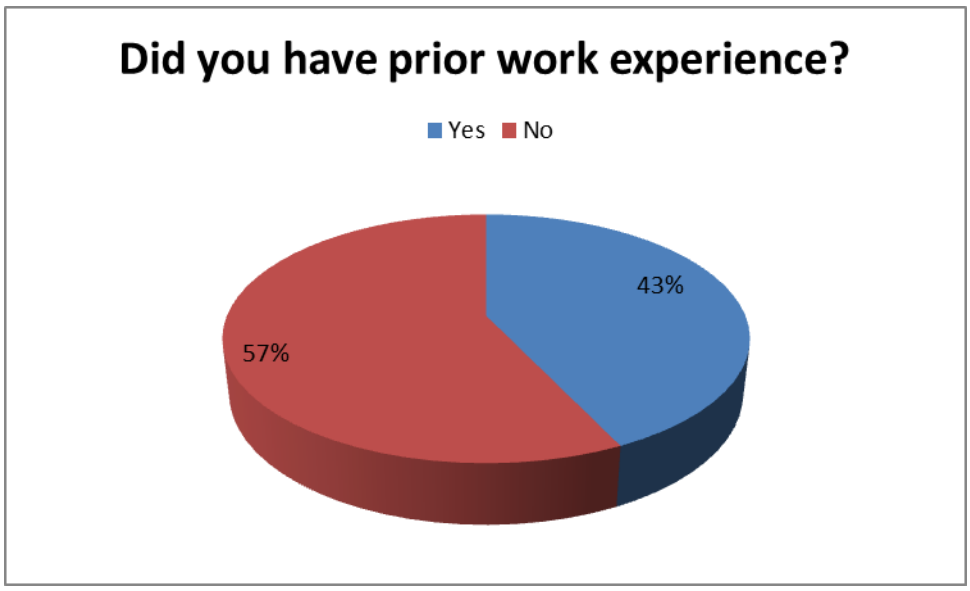
7. What kind of companies do they work in?

Qurrent renewable energy	Cogas, Almelo	General Electric, Mexico
Bluewater Energy Services	Bluewater, Hoofddorp	IHC Merwede
Endinet, Eindhoven	TenneT, Arnhem	Heijmans Asset Management Schiphol
BAM Techniek, Utrecht	Royal HarkoningDHV, Amsterdam	Cauberg-Huygen, Rotterdam
GDF SUEZ Energie Nijmegen	Deerns Nederland B.V. Rijswijk	TNO, Delft
KPMG Sustainability		

8. Examples of the kind of projects they work on in the companies

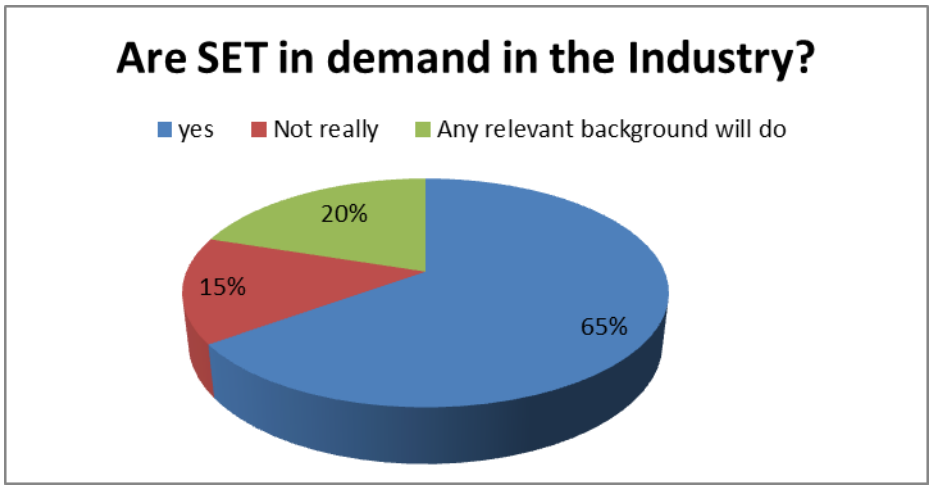
- PV monitoring, LED
- Smart Grids
- Tidal energy converters
- design of lifting tools
- sustainable energy action plans
- Smart grid, net analysis, risk analysis, monitoring assets
- Market coupling, offshore maintenance, system operations
- Sustainable energy generation for residential /non-residential buildings
- CFD for the built environment
- Commissioning of the Power plant, quality improvement.
- Building engineering
- Strategy, Megatrends, Assurance
- marine renewables, modeling and simulation
- Sustainability assessments of products in agro food industry
- Energy installations.

9. Did they have work experience before SET?

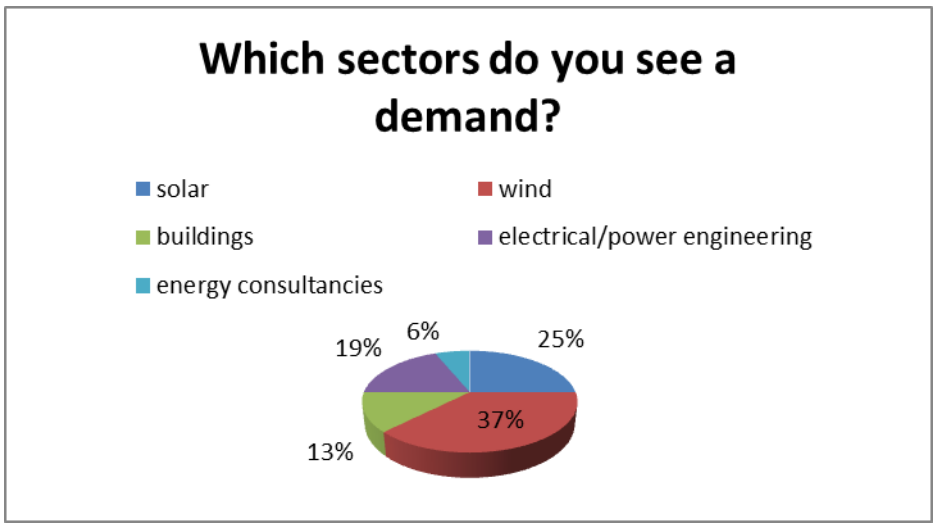


The image of SET in the industry

10. Are SET graduates in demand in the industry?



11. Where do you see this demand?



Feedback

12. What did you find most interesting in SET?

The solar cells course	Broad but technical master program Multi-disciplinary courses
The variety of options for thesis selection	The wind energy and the built and environment courses
The international friends and the level of education	Cooperation with TU Delft and U Twente

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13. What can be improved in SET?

- Narrow down the theme of the program.
- Make SET students start with a specialization.
- Courses are very general and very qualitative. The program does not aim to provide specialists to the industry (as a master study should do), but it rather gives a general idea about sustainable energies. I think the whole program structure should be reviewed.
- More practical/ hands-on experience.
- Feedback on grading for courses like Wind energy.
- More possibilities for deep specialization.
- Encourage entrepreneurship.
- Improve mentoring and organization.
- Some topics were not really required (too much focus on reactors, bio-energy).
- The contact between students and possible graduation projects at companies.

14. Advice for current SET students

- Clearly decide about their future careers from beginning of the study.
- Enjoy your life as a student and learn a lot. Be ambitious when you enter the industry. It is still all about the money, so we, sustainable people, have to be persistent to make the switch to sustainable energy.
- Try to deepen as much as possible in the field you have selected.
- Look further than renewable energy industry for your first job. Work expertise can bring you to the job you really want
- The thesis selection is very important.
- Look for more cost effective technologies and their application to our life. Look also from the energy efficient view point!
- Be more active, communicate any problems with professors and the educational committee. Take more initiatives and plan carefully their studies rather than relying exclusively to the TU staff for support and guidance.
- Startup projects are cool, search for some.
- Learn from the different cultures of your co-students and try to do your graduation project in industry; also find a graduation project in time
- Make sure you have enough knowledge about the topic/field you are going to work in. The regular program is not enough.
- For international students there are (technical) jobs available in the Netherlands. But dutch companies like to speak dutch to their employees so take one/two courses dutch so you can understand small talks.
- Do an internship with a private company
- Looking back, I think I could add some extra electives from technology management area. Current SET students can also benefit from those additional courses. Also, stay always alert for job opportunities, job fairs, bedrijvendagen etc.
- Think about what you like, what you're good at and what skills you have to make money and then figure out which skills apply to all
- decide a track from the beginning (otherwise have a plan B)
- Move beyond your box
- Expand your network; connect with people from delft, twente and other universities.