

Bernburg
Dessau
Köthen



Hochschule Anhalt
Anhalt University of Applied Sciences

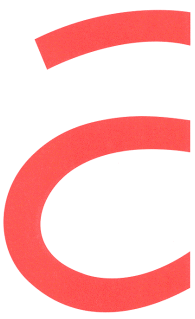
Challenges on Renewable Energies in Siberia

emw

Fachbereich
Elektrotechnik, Maschinenbau
und Wirtschaftsingenieurwesen

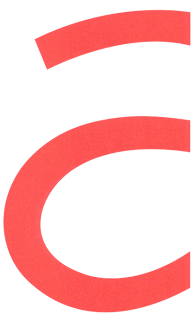
**Workshop on problems of autonomous power systems
in the Siberian region**

E. Siemens



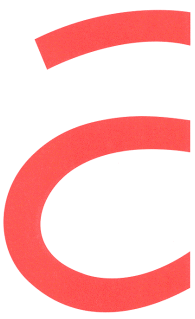
Welcome to the 1st Workshop on Problems of Autonomous
Power Systems
in the Siberian Region

Who is addressed?



- Who is addressed?
 - Technology providers in the relevant fields
 - Wind generators
 - PV manufacturers and engineers
 - Efficient energy consumption system developers
 - Innovative SMEs
 - Research bodies, institutes university
 - Industrial partners
- But the number of participants is limited...

Sponsored by...



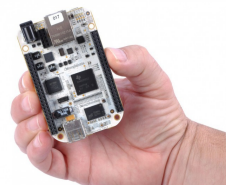
- Funded by Federal Ministry of Research and Education
 - International Office
 - Co-financed by the National Research Tomsk Polytechnic University
 - Also by Research Institute for Semiconductor Devices, Tomsk
- In the context of the project **SavEnCom**
 - FKZ 01DJ13011

SavEnCom is aimed at...



- Establishing a interdisciplinary joined German-Russian research with the focus on **environmental safety** and **energy efficiency** by aid of **communication technologies**

- As a crystallization point for creation of new research projects
- Active involvement of SMEs on both sides
- Technology transfer between research and industry



Instruments of SavEnCom



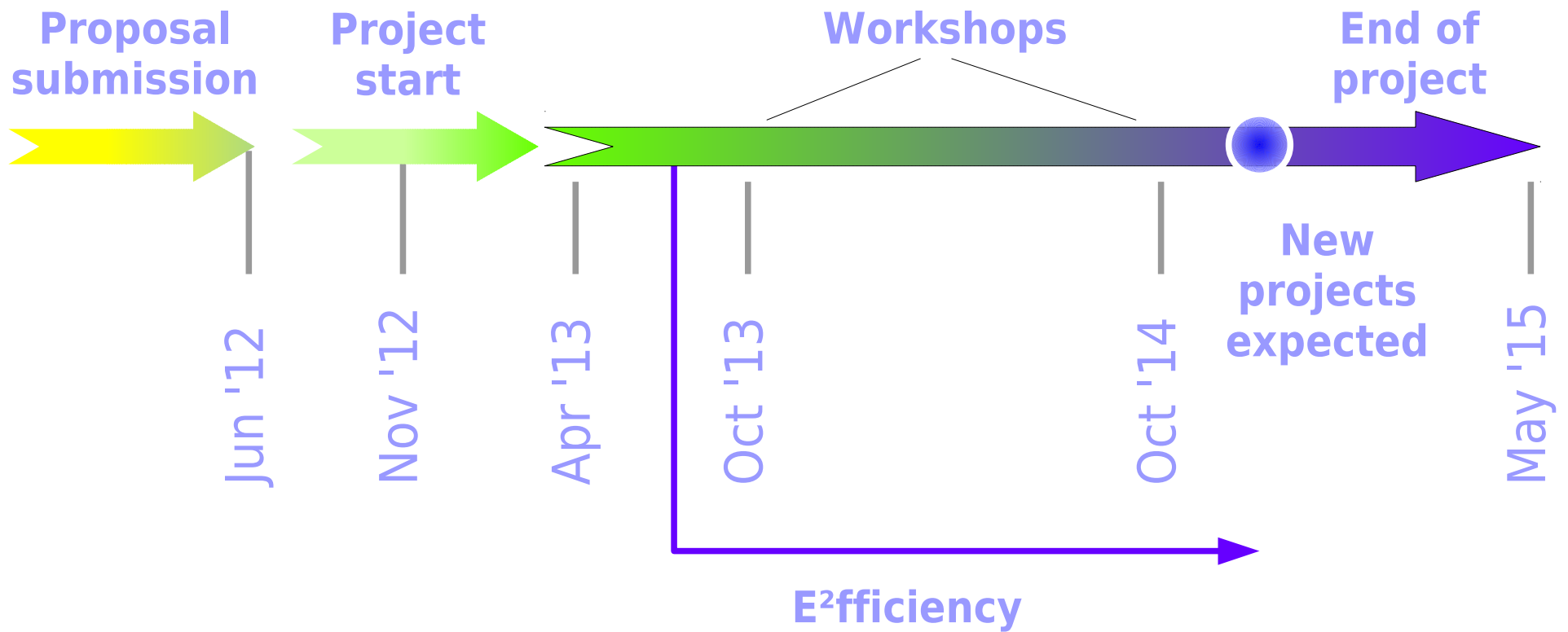
- Trips of German technology-specialists to Tomsk
- Stays of Russian researchers in Köthen
- Two workshops on problems of autonomous power systems in the Siberian region

- Definition of technological challenges

- Getting in touch with partners from Russia and Germany
 - Select appropriate project partners for solving technological problems

- Successive project proposals are expected and highly desirable
 - Financed by public bodies of the EU and federal government
 - Financed by industrial players

Time line of SavEncom



From SavEnCom to E²fficiency



- CLIENT program of BMBF
 - Research and sustainable development on climate safety and environmental technologies and services
 - Real research and development is funded
 - 7-digit funds volume per project
 - Application of technologies at target regions
 - Brazil
 - Russia
 - India
 - China
 - South Africa
 - Vietnam

Technological goals of E²fficiency



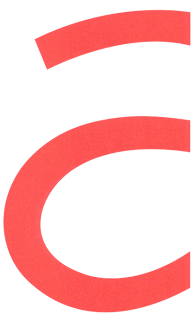
- Development of autonomous energy production systems with smart energy consumers
 - Running under harsh conditions of Siberia
 - Rural areas – limited reachability
 - No other infrastructure
 - Temperature range -65°C – 45 °C
 - Sdfsdk jl
- Power sources
 - Wind generators
 - PV-modules
- Buffering
 - Li-Ion batteries
- Consumers – Smart-lighting + dairy production

Russian partners already on board



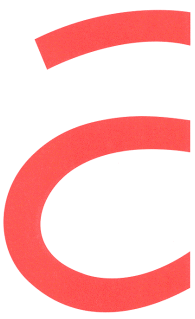
- Raising renewable energy production
 - On the strategic agenda of Russian government
- TPU on board
 - One among 15 best universities of Russia
 - Second position in innovation and technology transfer among technical universities
 - Rich contacts to research, industry and governmental agencies

Roadmap of the Workshop



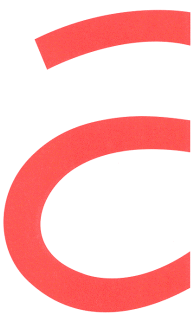
- Bringing pieces of the picture on the table
- Discussion of possible technological contributions
 - Stitching pieces together
 - Do we have gaps in the technology coverage?
 - Do we need new partners?
- Is the scope too wide or too narrow?
- Will SavEnCom be the only baby of SavEnCom?
- Which fund programs are arising?
 - Which partners shall we contact?

Roadmap of the Workshop



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Take your chance



- To get in touch with other players
- To ask your questions
- To present your approach