



Promotion of effective Innovation from Energy Clusters

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ECO WORLD STYRIA

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Your Ideas about effective Innovation ...

What is the more successful innovation after 3 years?
What might be the reasons?

A: Solar control saving 4% of system costs
of solarthermal systems developed by an
international engineering company

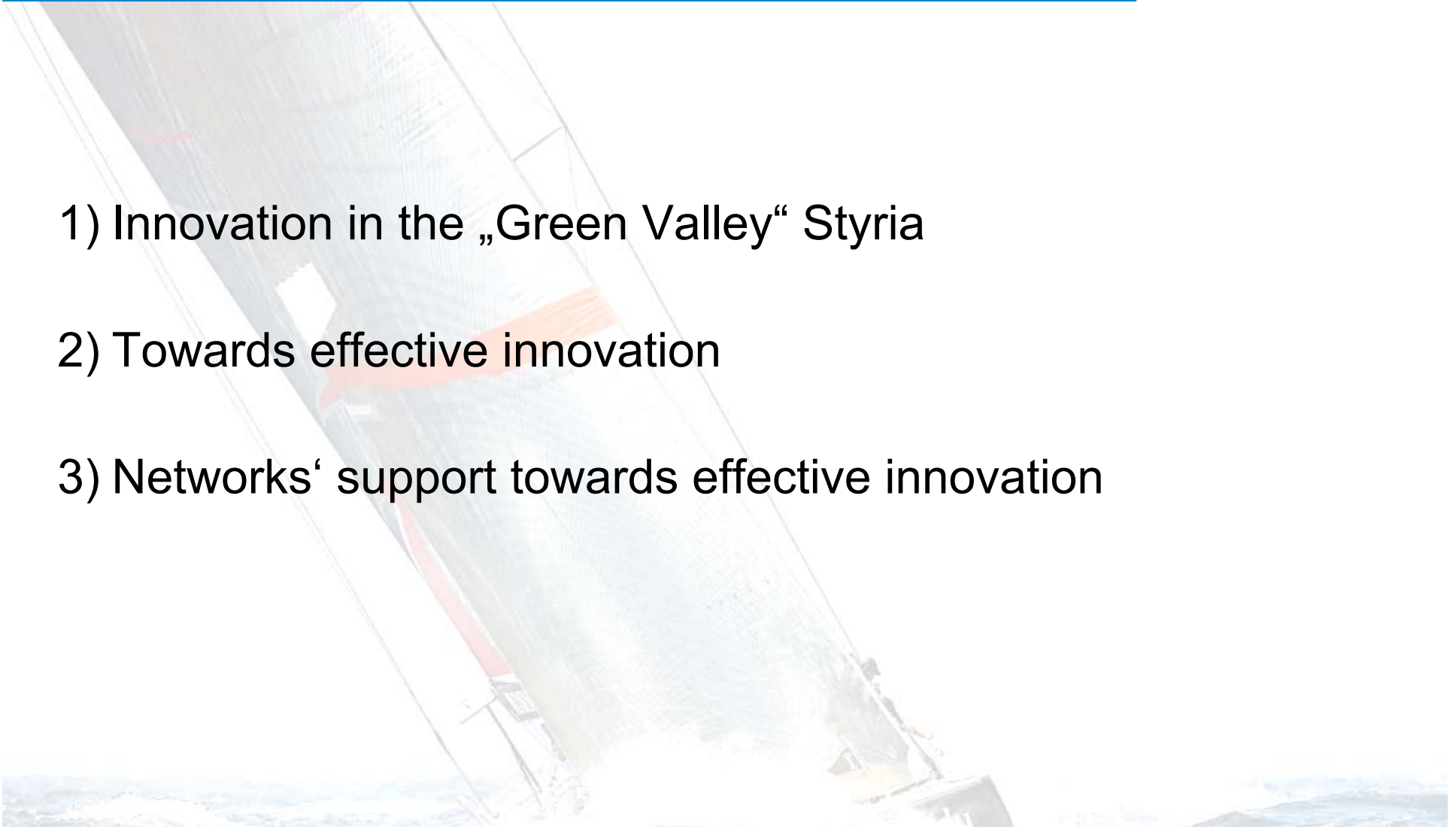
B: Biogas storage system from a traditional textile
company reducing costs of biogas plants

Agenda



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- 1) Innovation in the „Green Valley“ Styria
- 2) Towards effective innovation
- 3) Networks' support towards effective innovation



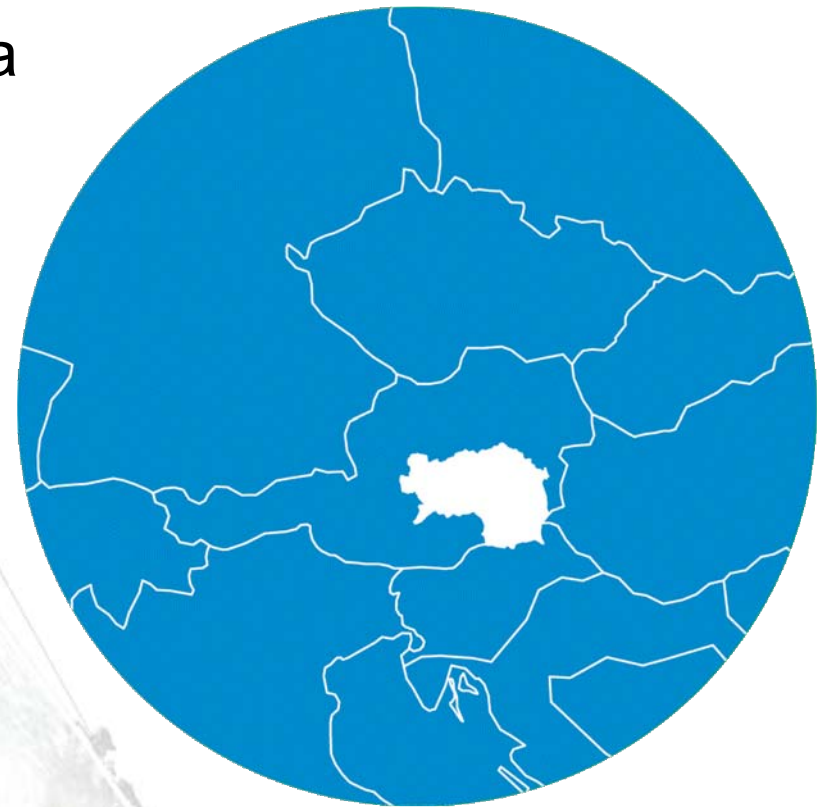


1 Innovation in the „Green Valley“ of Styria

Key Facts on Styria

- The southern province of Austria
- 1.1 Mio. inhabitants
- 3.6% research quota
- 4.7% economic growth
- Credo: innovation in series

- Pioneering region since 1982
- 25% renewable energy used
- 65 % recycling quota

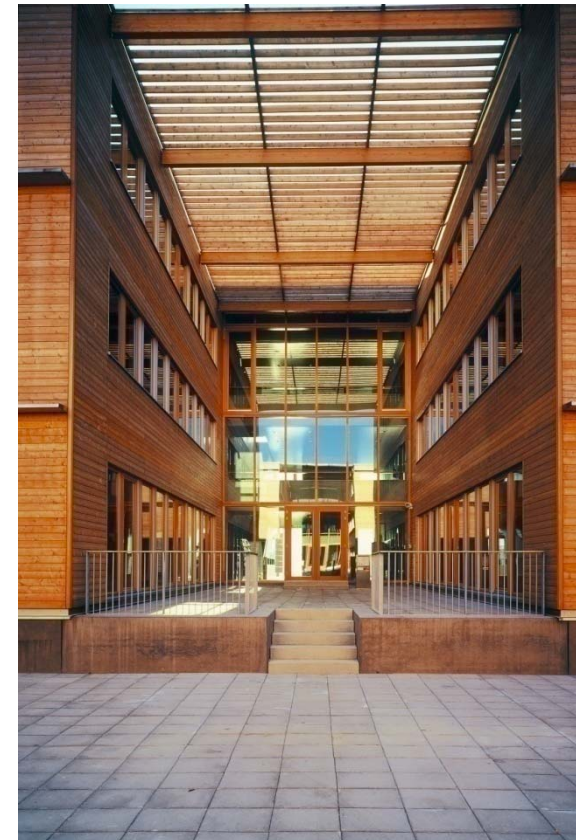


Key Facts on ECO WORLD STYRIA



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- Development:
1998-2005 „Eco & Co“: webplattform, network
since 2006 „ECO WORLD STYRIA“
cluster-like network of companies
- Financed by:
County of Styria (2007: 74% _)
Members and services (2006: 26%_)
- 4.5 FTE employees
- 125 paying members (200 - 4.900 €/a)



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IN RENEWABLE ENERGY AND ENVIRONMENTAL TECHNOLOGY



ECO

ECO WORLD STYRIA
YOUR BUSINESS-PARTNER!

INNOVATION

NEW MARKETS

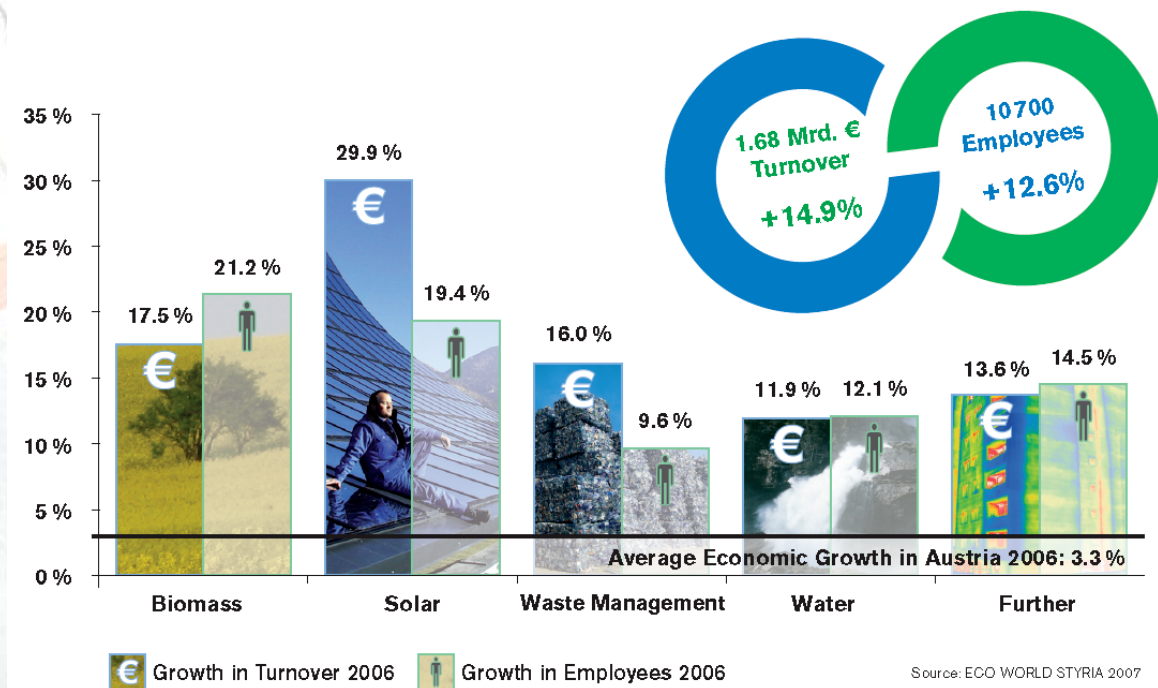
KNOWHOW

MARKETING



Styrian Energy and Environmental Technology - leading concentration

- More than 120 companies with 20.000 employees and 4.3 bio. turnover – 40-50% with green technologies
- One of the highest concentration of green technologies in Europe: turnover > 5% of GRP
- Several international competence centres (biomass, solar)
- 15% growth rate/a, faster than markets



Innovation Leadership in specialised Fields



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2 Towards effective Innovation

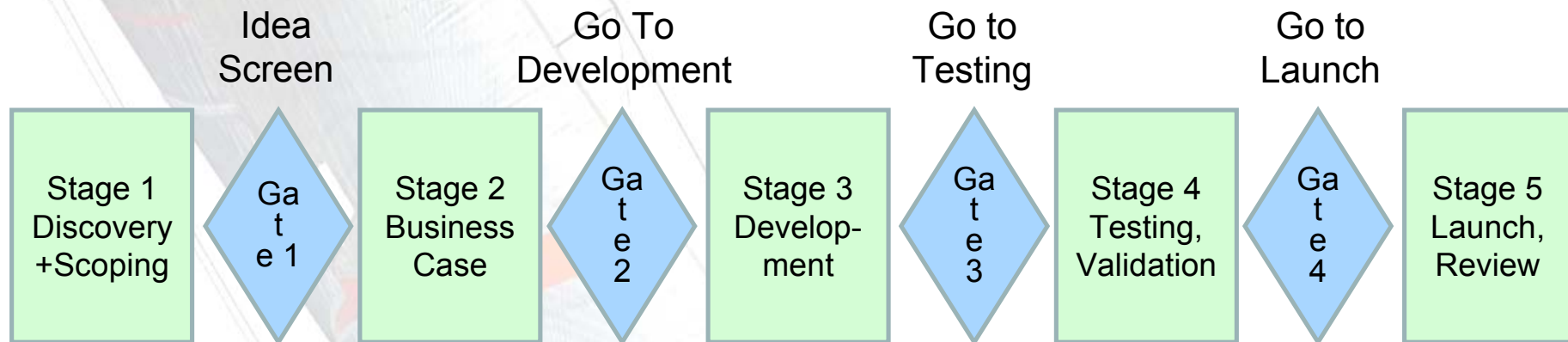
Innovation for companies

Innovation = Invention + Market Success

Four Factors shape the Performance-Diamond of Innovation



Effective Innovation Process for Companies



Stage-Gate® Roadmap for successful new products

73% of innovating companies
use this or similar process in US.



3 Networks' Support towards effective Innovation

Innovation Support of Clusters

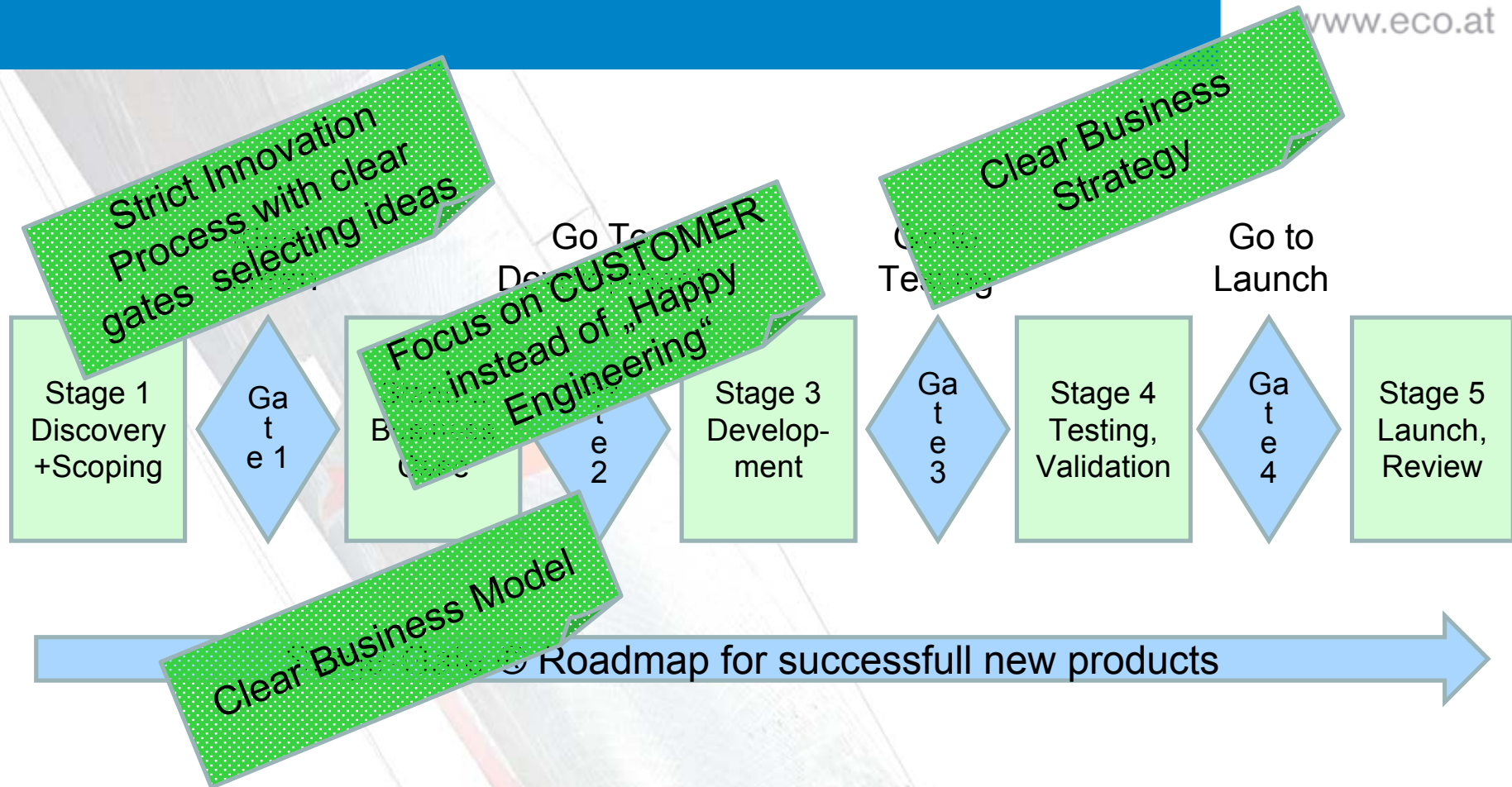
-
- Facilitate innovativeness
 - Promote new technologies
 - Product development
 - Demonstration projects
 - Technology transfer
 - Support innovative ideas
 - Analyse technological trends
 - Diffuse technology
 - Support demonstration projects
 - Launching, developing and supporting co-operation projects between cluster partners and with technology transfer facilities

Challenges for effective Innovation

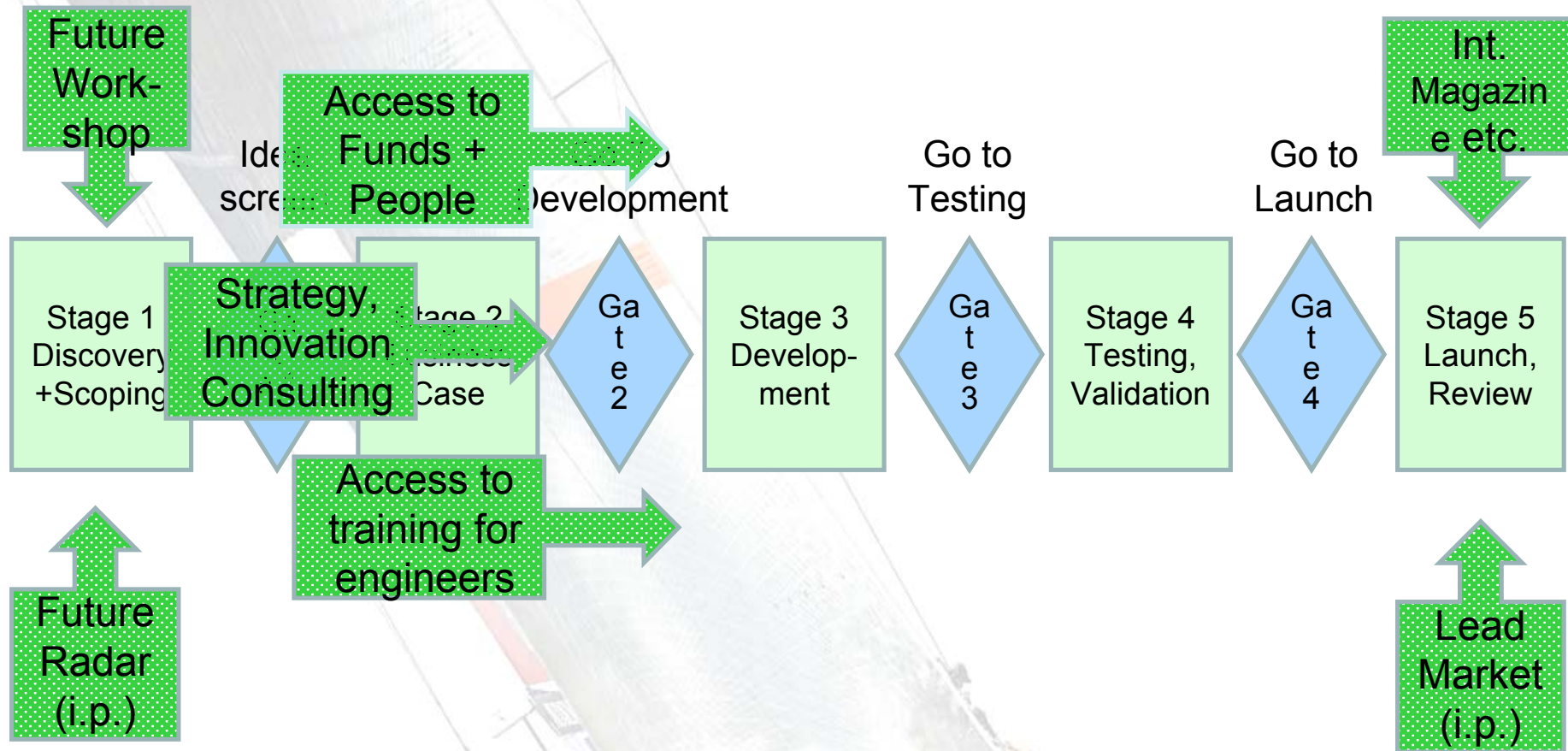
Styrian companies are today facing 3 major challenges

- High research quota (3.9%)
but only good average turnover with new products
- High growth rate
but average venture capital access
- Engineers as Managers

Selected Hubs for Improvement



ECO's Range of Innovation Services



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Learn more about 100 Top Climate Protection Products „Made in Styria“



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Product map

Product | Service | Company name
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Consulting: solar energy DDI Dr. Weiss
R&D: solar heating AEE INTEC
Photovoltaic projects ecowatt, Feistritzwerke, Florian Lugitsch, Freiding, TB DI Führer, eco lights

R&D: water AEE INTEC, Joanneum Research
R&D: water usage Kompetenznetzwerk Wasserressourcen
Solid-liquid separation Andritz
Water protection ensowa
Industrial waste water treatment Dauser
Industrial water pre-treatment Dauser

Solar lighting systems
Solar pumps
Solar thermal large-scale



LEADERSHIP NEWS TERMINE SERVICES FÜR MITGLIEDER ÜBER ECO

Sie befinden sich hier: Leadership > Unternehmen + Lösungen

Steirische Spitzenlösungen

Unternehmen + Lösungen

ECO Szene

Mitglied-Unternehmen

ALPPS Fuel Cell Systems GmbH	8051 Graz
Amt d. Stmk., Landesreg., FA13A, Büro des Energiebeauftragten	8010 Graz
Bluewaters	8041 Graz
CEG	8012 Graz
Environ	8542 Gweins
Energieagentur Judenburg-Knittelfeld-Murau	8750 Judenburg
GEA - Grazer Energieagentur Ges.m.b.H.	8010 Graz
Geosolar - Techn. Büro Ing. Glatz - FMT	8740 Zellweg
Markt + Innovation (FMI)	8061 St. Radegund
Pink Behältertechnik	8665 Langenwang
Spitzer Ing. GesmbH.	8250 Vorau
STANZEL, Zivilingenieur Dr.	8052 Graz
Weiss & Partner, Anlagenplanung GmbH	8020 Graz

Mitglied von ECO World Styria >> andere Unternehmen

Firmenportrait

Markt + Innovation (FMI)

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E: info@fmi.at
Web: www.fmi.at

www.eco.at



BIOMASS

Consulting: biogas LEA
Consulting: biomass DDI Dr. Weiss
Cogeneration plant LEV
Biodiesel installations J. Christof
Biogas fuel station infrastructure Steirische Gas-Wärme
Biogas installations Dauser, Agrinz, TB Büro DI Führer
Biogas storage Sattler
Biogas technology Enbasys, IPUS
Biomass boiler BINDER Josef
Biomass cogeneration plant BINDER Josef & Environment
ICS Energietechnik
Steirische Gas-Wärme
Biomass boiler > 300 kW BINDER Josef
ICS Energietechnik
Biomass project management Ing. Leo Riebenbauer
Mobile heating plant BINDER Josef
EnergyCa bin
R&D: biomass ABC
Joanneum Research
Waste wood chip heating KWB
Waste wood chip machinery Stanzel Helmut
Chimney boiler Perhofer

Waste treatment A.S.A., UEG
Waste-related services Saubermacher
Waste-related logistics A.S.A.
Saubermacher
UEG, AEVG
Waste separation facilities Komptech
Waste management concepts TB DI Astner
Josef Trummer
Clean-up operations ensowa, UTC
Recycled paper sorting facilities Binder + Co
Consulting: waste disposal A.S.A.
Substitute fuels Saubermacher, UEG
R&D: material flow Montanuniv. Leoben
Glass sorting facilities Binder + Co
Composting technology Komptech

Consulting: energy efficiency EAO, LEV
Energy Performance Certificate Bluewaters, LEV
Energy contracting enerep, GEA, WDS
Energy efficiency projects DDI Dr. Weiss, TB DI Astner
Steirische Gas-Wärme
STENUM, TB Hammer
WDS
Energy concepts ecowatt, enerep
EAO, ENERTEC
ensowa, GEA, LEA
Feistritzwerke
R&D: sustainable construction AEE INTEC
Building services enerep, ENERTEC
Feistritzwerke, Spitzer
Steiner Haustechnik



FURTHER

Biogas purification installations Austrian Energy & Environment
Plant engineering TECMAN, Austrian Energy & Environment
Automation technology TECMAN, Florian Lugitsch, Hereschwerke
Production management systems Solvion
Consulting: sustainability Josef Trummer, pro sustainability, Wöllner & Schauer
CO₂ calculator akaryon
Electrical engineering Florian Lugitsch
Energy storage Pink
Engineering Dipl.-Ing. Hinrichs
TB Hammer
R&D: sustainable technologies Joanneum Research
Funding Dr. Hutter
Subsidy management akaryon, APS
Industrial ventilators CB-Austria
Loam/clay materials natur & lehm, pro Lehm
International market development Bluewaters
Renewable energy provision Weizer Naturenergie
Environmental testing Montanuniv. Leoben, UTC
Environmental management systems CPC, pro sustainability
Management consulting STENUM, Komthaus, Kompetenznetzwerk Wasserressourcen, Kummer & Cresnar, Solvion

Conclusions

- 1) ECO WOLRD STYRIA offers a high concentration of innovating companies
- 2) Energy companies face several challenges towards effective innovation
- 3) Energy clusters and networks should focus on promising hubs towards effective innovation

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in Renewable Energy and
Environmental Technology.

Thank You for
Your attention!

