



A case for going beyond the standard model

STEM for Governance and Policy





Who knows what they want to do after their PhD

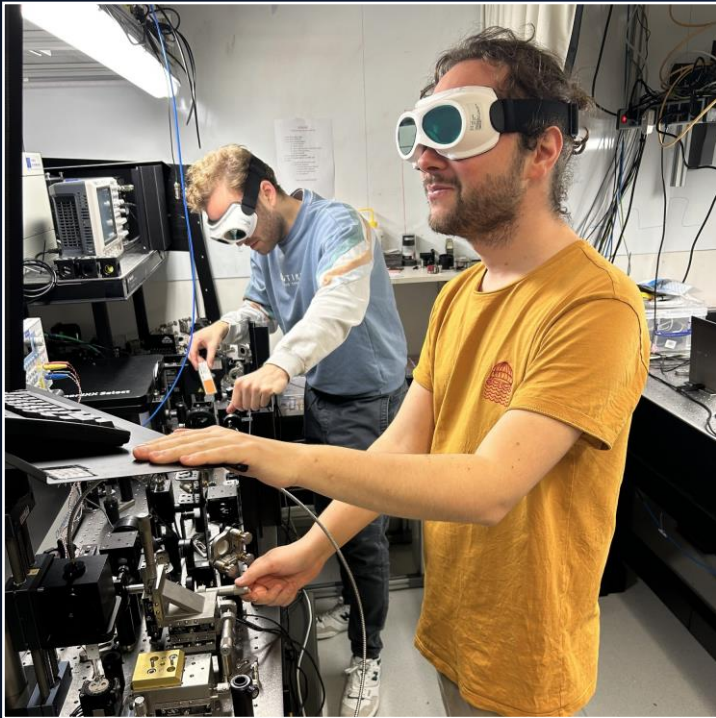


Who wants to stay in academia



Who has ever thought about a career in the public sector

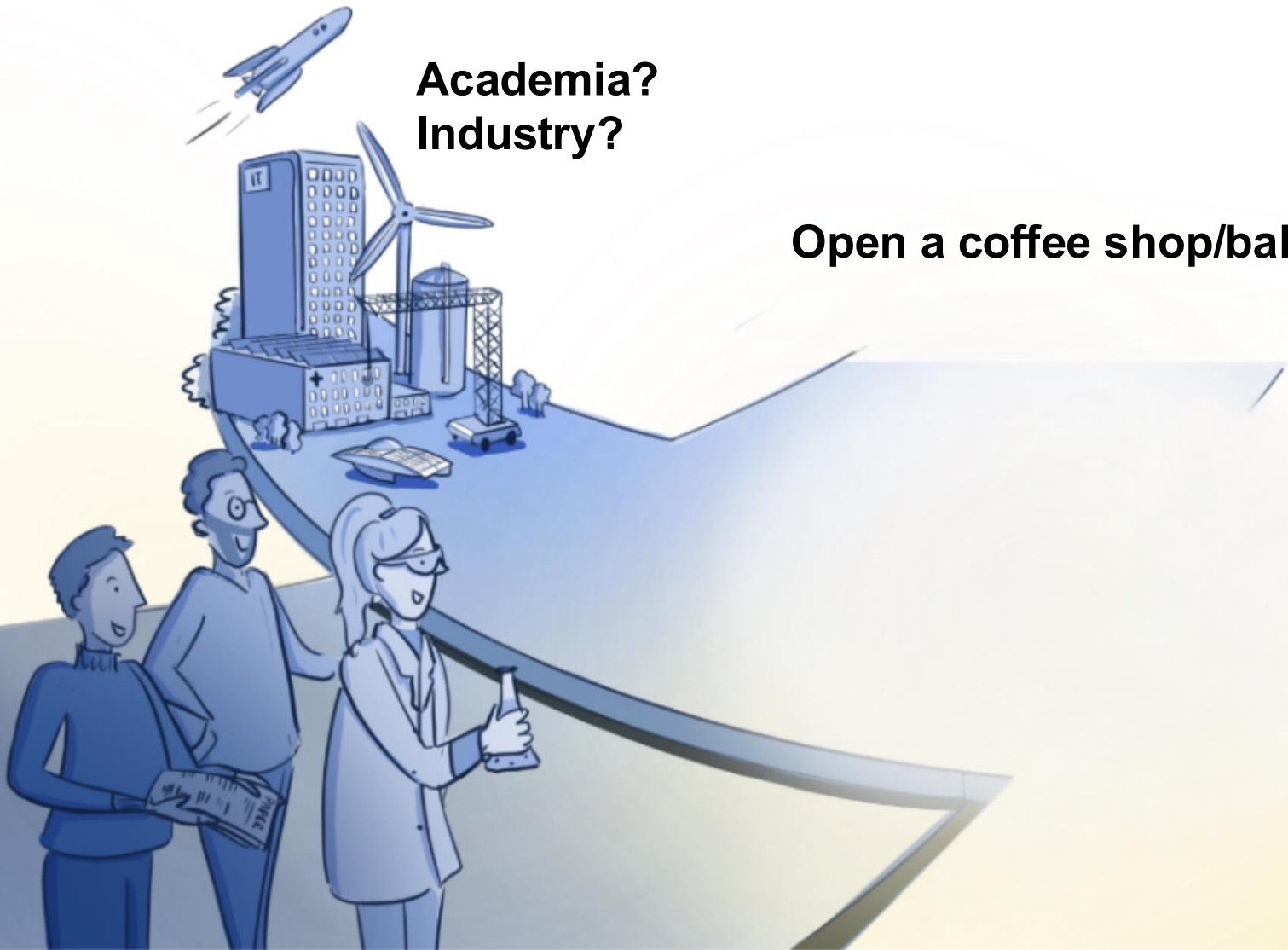
About me

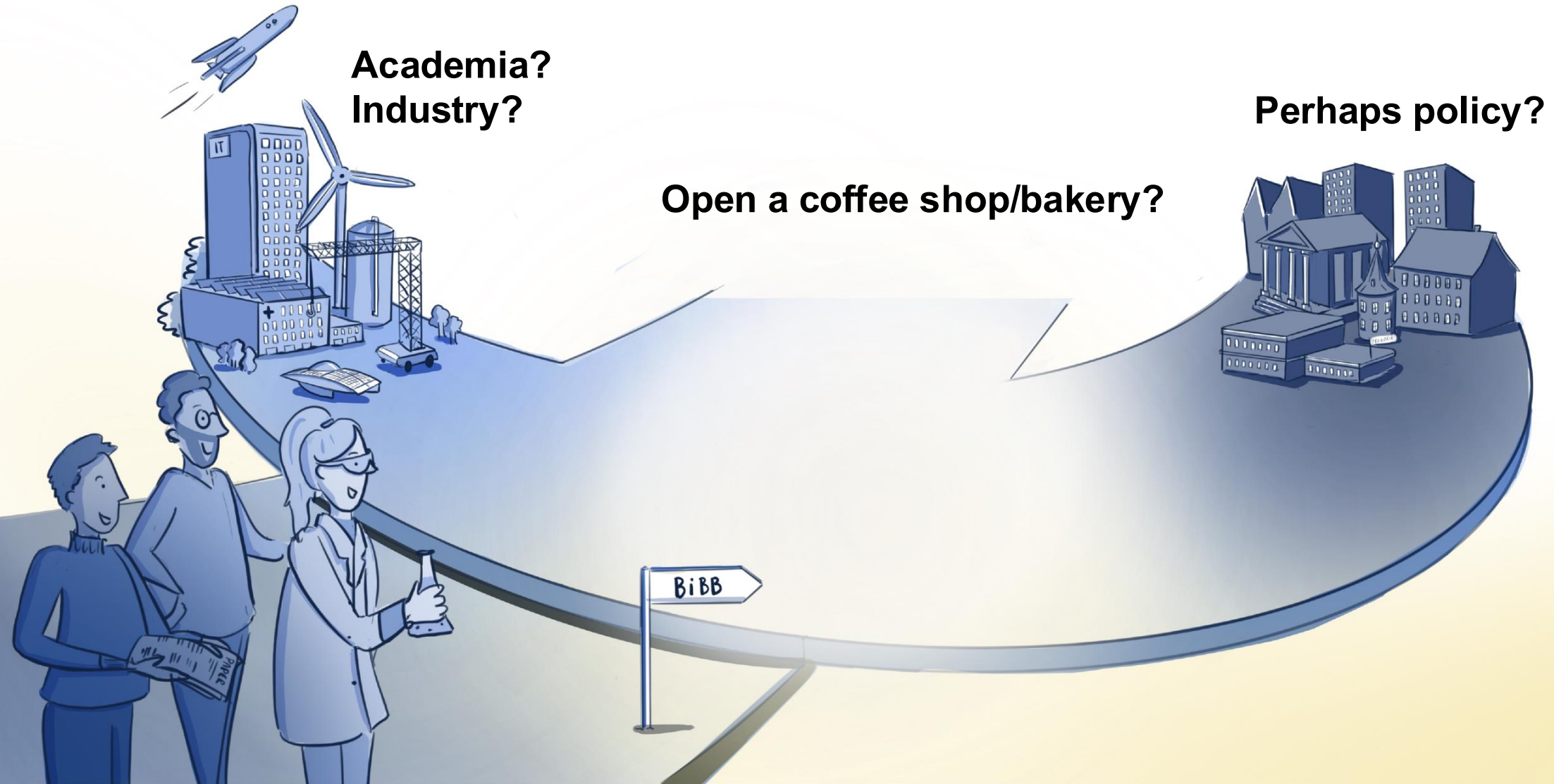


- Studied Physics at UvA
 - Worked at a company for a year
 - PhD student at AMOLF
 - What's next?
 - Academia?
 - Industry?
 - Open a coffee shop/bakery?
-

**Academia?
Industry?**

Open a coffee shop/bakery?





“



Very few STEM MSc students, PhD graduates, and postdocs see public administration or politics as realistic, intellectually satisfying career paths.

The Bèta in Bestuur & Beleid (BiBB – “STEM for Governance and Policy”) initiative was created to change exactly that.

Liedewij Laan

Founder of BiBB

Associate professor in physics TU Delft

STEM in politics

discipline	Eerste Kamer	Tweede Kamer	population
Alfa (Humanities / Arts)	16%	18%	6%
Bèta (STEM)	25%	24%	46%
Gamma (Social sciences)	69%	65%	47%



This is striking because the major challenges facing the Netherlands, such as the energy transition, rising healthcare costs, and the nitrogen crisis, are strongly linked to these disciplines.

Dr. Simon Otjes

Lecturer at Leiden Universiteit

STEM in government

Deskundige overheid

De deskundige overheid in negen vragen

WRR

WETENSCHAPPELIJKE RAAD VOOR HET REGERINGSBELEID



- An increasing dependence on external hiring for essential technical expertise
- Shortages of specialized expertise, especially in smaller municipalities
- A government that is often more focused on process knowledge than on substantive expertise.

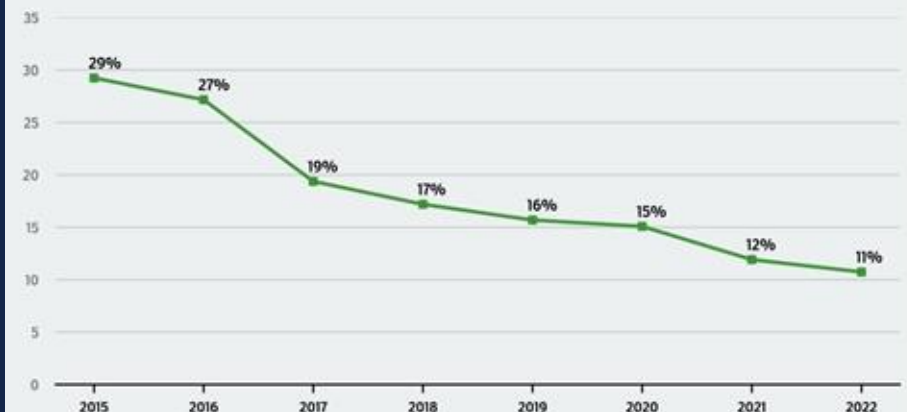
Onderzoek Hoe het landsbestuur zijn eigen valkuil groef

Lege glazen torens

'Bureaucratie is een belasting op groei,' zei premier Mark Rutte in 2010. Het mes moest in de ambtenarij. Nu dat is gelukt, is er spijt. De Haagse torens zijn gevuld met generalisten terwijl 'politieke sensitiviteit' een leidende competentie blijft.

Steeds minder specialistische beleidsfuncties

Percentage beleidsvacatures met minstens één inhoudelijke eis, exclusief juristen





“



We increasingly rely on science to address the major challenges of our time. Therefore, it is crucial that STEM expertise is also present in policy departments and advisory bodies.

Robbert Dijkgraaf

Professor in Mathematical physics and Science and Society
Ex Minister of Education, Culture and Science

STEM

training

Seek objective, testable truths

Prefer optimal or elegant solutions

Evidence is central and decisive

Precise, technical, detail-oriented

Policy training

Deal with contested truths and competing viewpoints

Solutions are compromises rather than optimal outcomes

Evidence is one input among many

Framing and storytelling are crucial

Waarom bèta's?



Analytische bèta-blik
inbrengen bij vraagstukken



Technische kennis
om maatschappelijke
problemen op te lossen



Carrièremogelijkheden



Politiek
analytisch sturing
geven



Beleid
voor technische
onderwerpen én
algemene
besluitvorming



Uitvoering
vakinhoudelijke kennis
in de praktijk brengen



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BiBB

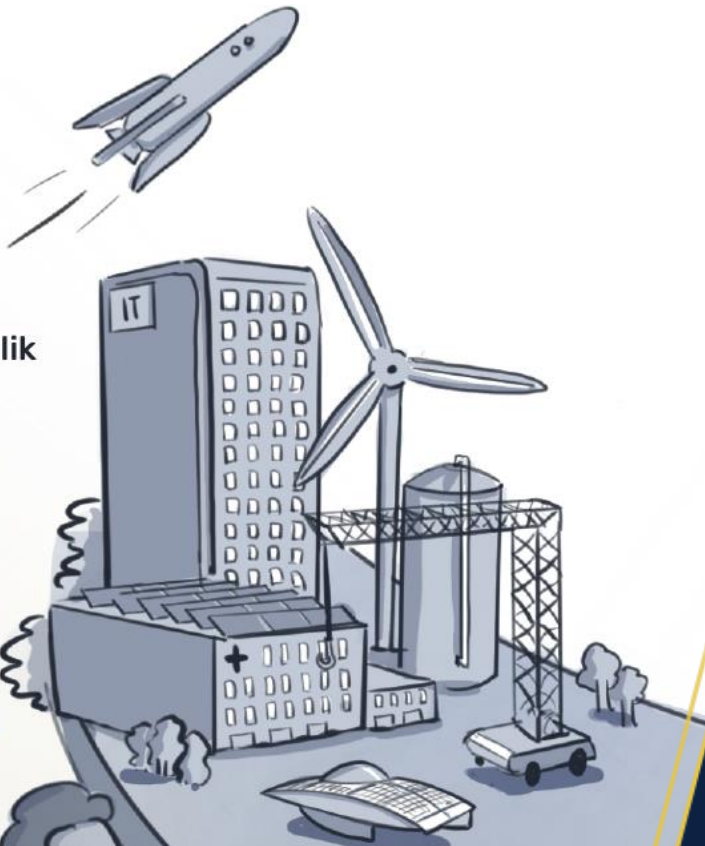
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Analytical STEM perspective
To tackle complex issues



Technical expertise
Contributing to solving societal
challenges:

- Energy transition
- Future of healthcare
- Artificial Intelligence
- Climate change



Politics
Analytical
decision making



Policy
Technical or
analytical challenges



Implementation
Bring knowledge
into practice



Politiek
analytisch sturing
geven



Beleid
voor technische
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Uitvoering
vakinhoudelijke kennis
in de praktijk brengen



“



Theoretical physics is about puzzling with assumptions and finding creative solutions.

I now use those same skills to critically question policy assumptions and to find new perspectives on complex climate issues using scientific insights. In this way, I apply my STEM background to contribute to a sustainable future.

Dorien van den Bergh

Wetenschappelijke klimaatraad
Ministerie van Economische Zaken en Klimaat

Try and explore! It might be fun

Full-time role
in government or public service



Contribute in your
spare time



Apply your
technical skills



Advise or share insights
from your expertise



Contribute to projects with
societal impact



Fully involved
in governance



Carrièremogelijkheden



Politiek
analytisch sturing
geven



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voor technische
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Uitvoering
vakinhoudelijke kennis
in de praktijk brengen



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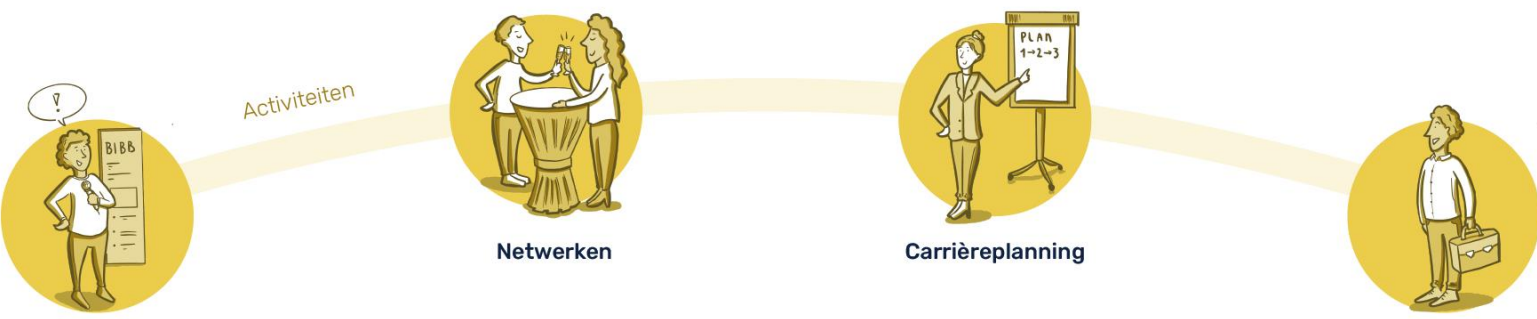
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Uitvoering
vakinhoudelijke kennis
in de praktijk brengen



Inspiratie

Netwerken

Carrièreplanning

Professionele verdieping

Carrièremogelijkheden

Bèta in Bestuur & Beleid

BiBB versterkt de verbinding tussen bèta's en het publieke domein: omdat diverse perspectieven samen zorgen voor maatschappelijke impact

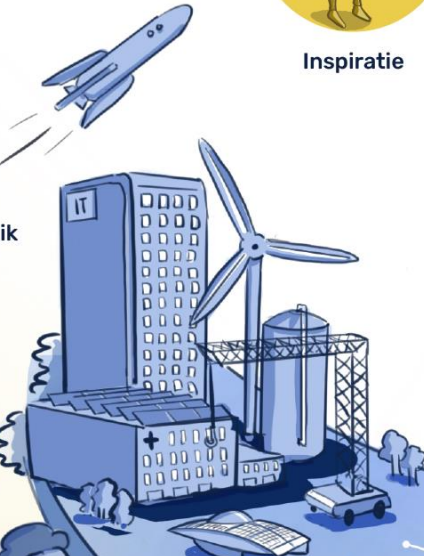
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Analytische bèta-blik
inbrengen bij vraagstukken



Technische kennis
om maatschappelijke problemen op te lossen



Politiek
analytisch sturing geven



Beleid
voor technische onderwerpen én algemene besluitvorming



Uitvoering
vakinhoudelijke kennis in de praktijk brengen



About BiBB



Liedewij
Laan



Arlette Werner



Kevin Klein
Gunnewiek



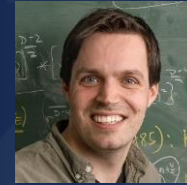
Marcel
Kouwenhoven



Mirre
Scholte



Sanne
Pot



Bart
Zonneveld



Amanda van
der Sijs



Colin
Meulblok



Patrick
Decowski



Natalia
Vtyurina



Lennart van
Doremalen



Joost van
Mameren



Sandy
Grishaver-
Kalisingh



Rik Volger



Pim
Linnebank



Adarsh
Kalkadien



Marloes
Vredenburg



Maurits de
Roo



Jan-Willem
Hurkmans

About BiBB



OUTREACH

Inspire students and young researchers



CAREER DAY

Inspiring day to discover job possibilities



SUMMERSCHOOL

Week full of courses on governance



FELLOWSHIP

High level introduction into government



WORKSHOP

Policy communication for senior scientists

About BiBB



- Inspiring young STEM scientists
- Increase awareness in the field
- Mingle in the public debate

OUTREACH

Inspire students
and young
researchers



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150-200 young interested STEM students and
researchers

→ 25 November at Sociëteit de Witte in Den Haag

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SUMMERSCHOOL

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courses on
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30 young STEM researchers

➔ 6-10 September – Kasteel Spelderholt

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FELLOWSHIP

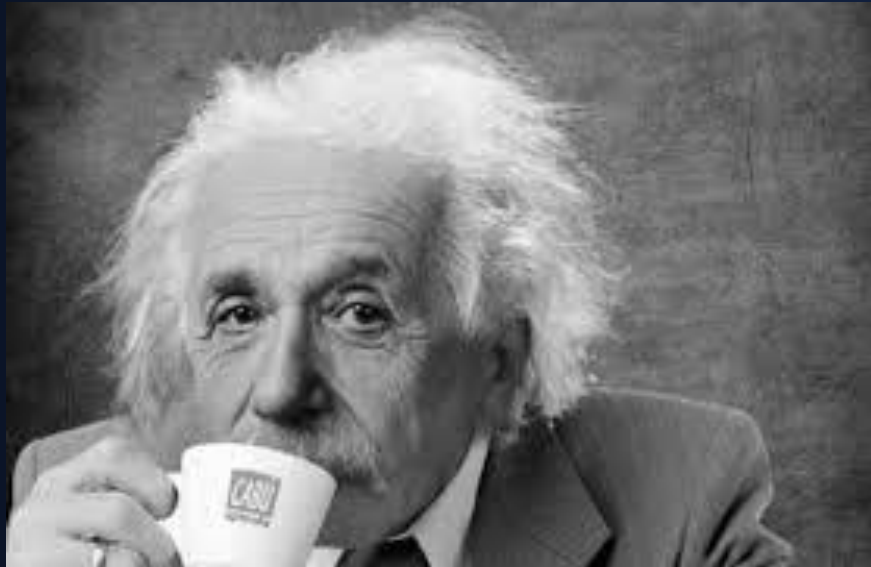
High level introduction into government



WORKSHOP

Policy communication for senior scientists

Homework



- Do I have a moment to explore the possibilities to contribute to governance & policy?
 - Discuss over coffee
-

More information

For information & contact details see website:



www.betainbestuurenbeleid.nl

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‘Soft skills are more important than technical knowledge in a policy function’



What you learn in your STEM study is very
suitable for policy related function