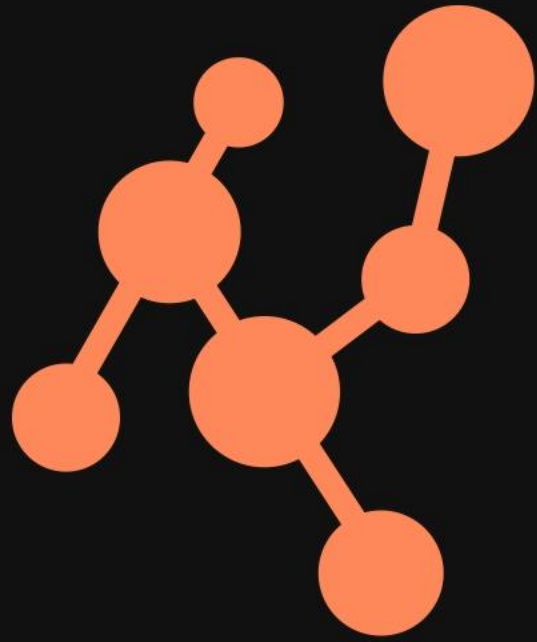




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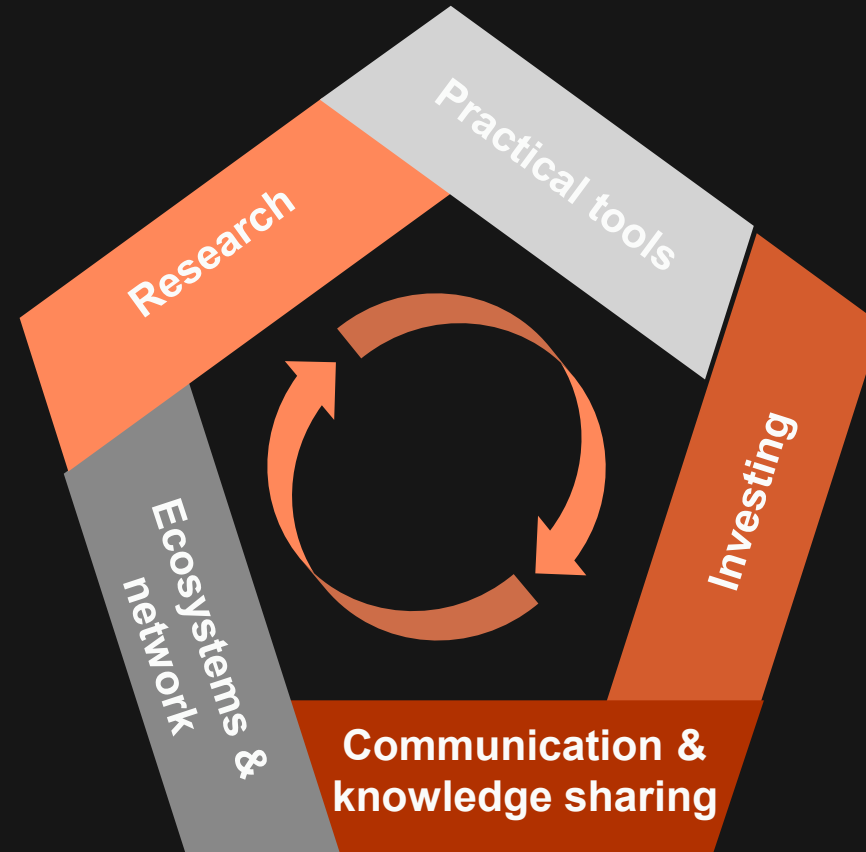
topsector
energie 

groen
vermogen

Innovation engine for the
green hydrogen economy



Role of TSE





Our network / skills ecosystem





Dutch labour market (1/2)

Labor Market Shortages in the Netherlands

The Dutch economy has long benefited from substantial openness to achieve high living standards and provide employment opportunities. However, the labor market has become exceptionally tight recently, with cyclical and structural factors contributing to the tightness. Rapid population aging and an ambitious climate agenda call for more efficient use of resources and productivity growth to maintain economic growth. A comprehensive approach is needed to address labor shortages, promote a more inclusive, flexible, and efficient labor market, and support economic growth. Policymakers should target measures that help increase market flexibility, activate the unemployed, incentivize longer working hours of part-time employees, promote longer working lives, restore the balance between different types of employment, secure adequate social protection of all groups, ensure a smooth transition from one job to another, and encourage innovation and technology adoption.

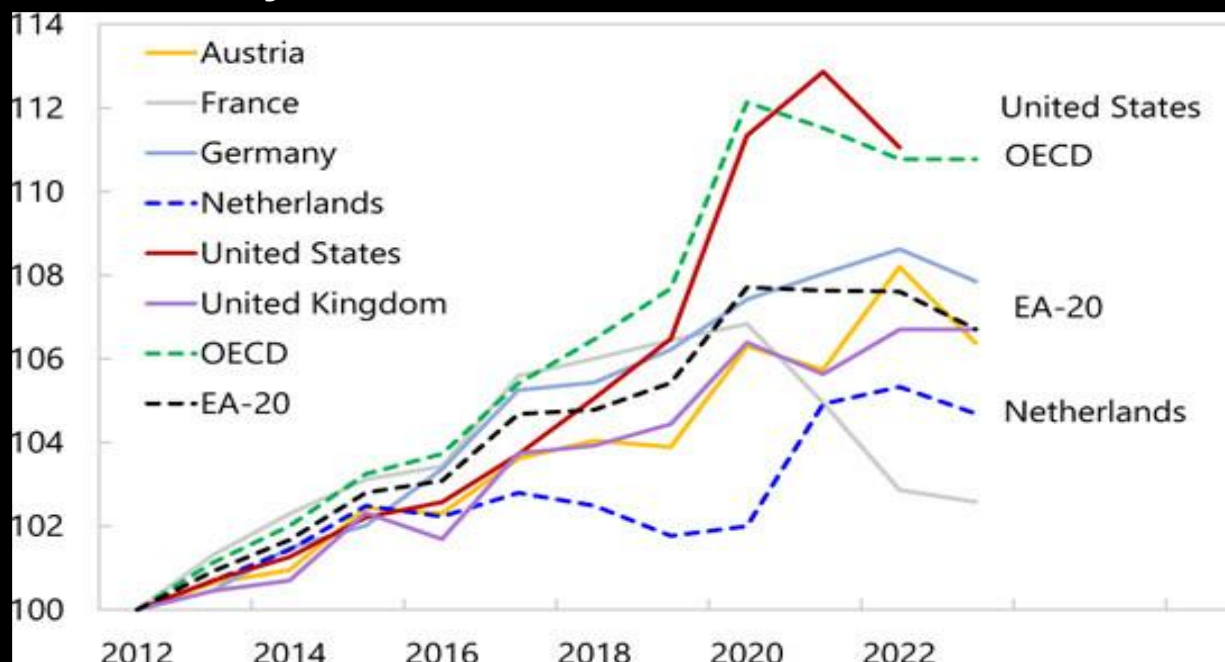
Skill Mismatches

21. Skill mismatches create bottlenecks and exacerbate labor shortages in sectors relevant to greater digitalization and low-carbon transition. The shortages of personnel in engineering and Information and Communication Technology (ICT) sectors are felt across the economy. Given the country's ambitious climate agenda, green skills are in high demand. In October 2022, some 48 thousand vacancies for jobs related to energy transition remained unfilled. Most vacancies were open for designers, architects, IT systems analysts, electricians, solar panel installation technicians, electric car charging station installers, accountants, administrators, and project leaders for the construction sector and installation businesses (NL Times, 2022). In the future, even more professionals will be needed to achieve its goals. Gonne (2023b) highlights a study, which finds that reducing greenhouse gas emissions by 55 percent by 2030 could create about 28 thousand new technical jobs, in addition to the already existing 26 thousand full-time equivalent jobs employed in the Dutch energy sector.



Dutch labour market (2/2)

Productivity



25. Over the last decade, Dutch economic growth has been significantly driven by labor input, with productivity lagging its peers. Ando (2022) indicates that labor input growth has been the main contributor to the solid real GDP growth in the Netherlands, and productivity has been lagging some other advanced economies and its peers. The author suggests that the slowdown in Dutch productivity growth is likely driven by exogenous shocks (e.g., climate events and policy decisions) and structural challenges, which include labor market duality, skill mismatch, and weak investment Dutch labor productivity—defined as real GDP growth per employed person—has grown in line with the EA average. However, productivity per hour worked, defined as real GDP per hour worked, increased by 4.7 percent (text chart) but below the EA average (6.7 percent). Similarly to other EA countries, however, the Dutch productivity growth is also well below that of the United States and the average for the OECD countries (10.8 percent).



Examples of what we do



NGF: Towards the future Learning communities as drivers of the green hydrogen economy



Vermogen | Human Capital Agenda

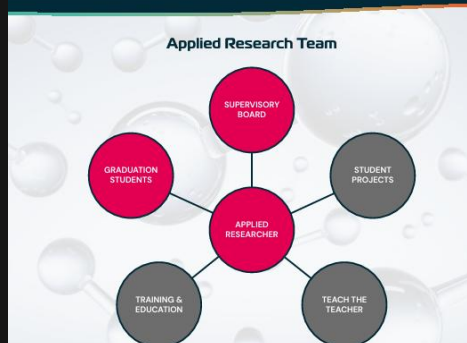
Applied Research Team (regio Oost)

Het Applied Research Team (ART) werkt aan innovatie, waarbij kennisontwikkeling, praktische toepassingen en kennisdeling centraal staan. Een onderzoeksvraag vanuit het werkveld is het vertrekpunt, waarbij de lijnen met de opdrachtgevers kort zijn. Studenten spelen een actieve rol op diverse niveaus. Binnen het team zijn er naast onderzoekers, dus ook gepassioneerde studenten die een cruciale bijdrage leveren.

Samen met de Supervisory Board wordt gestreefd naar maximale impact van de ontwikkelde kennis in het onderzoek.

Innovatie, werken en leren gaan hand in hand en vormen een dynamische mix.

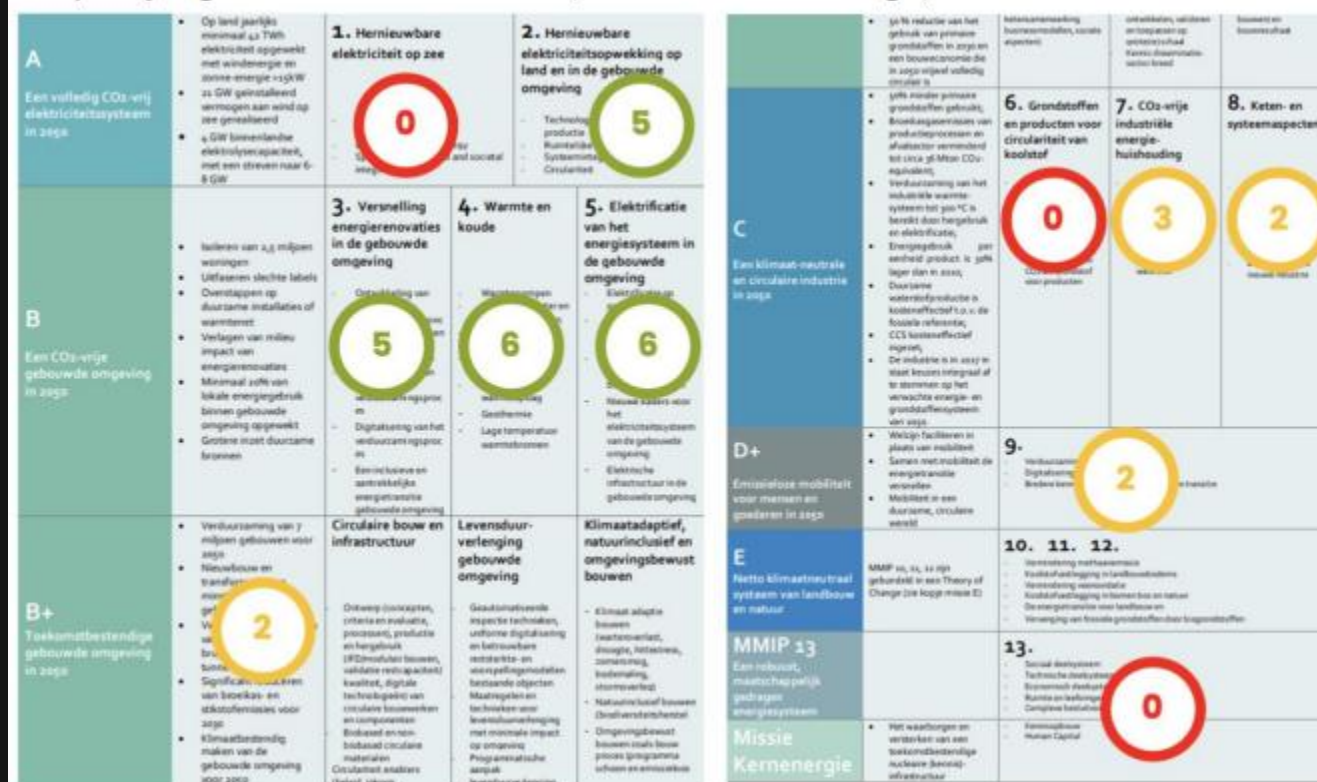
De missie reikt verder dan onderzoek: het team ontwikkelt middelen en materialen om kennis over te dragen aan docenten en professionals, om zo bij te dragen aan een betere toekomst.



Mapping education → analyse gap → common agenda



Analyse bijdrage Practoraten aan MMIP's (uit: KIA Klimaat & Energie)



Figuur 4: Overzicht van speerpunt MMIP's van deelnemende practoraten



Strenghts, weaknesses and priorities

Strenghts:

- Regional networks and cooperation between education and companies.
- High quality education (mbo-hbo-wo) in all parts of the country.
- Connecting mbo within innovation ecosystem.

Weaknesses:



Priorities:

- Build labour market structure from the individual perspective
 - Focus, think and do more long term.

Thank you

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