



Erich Prem

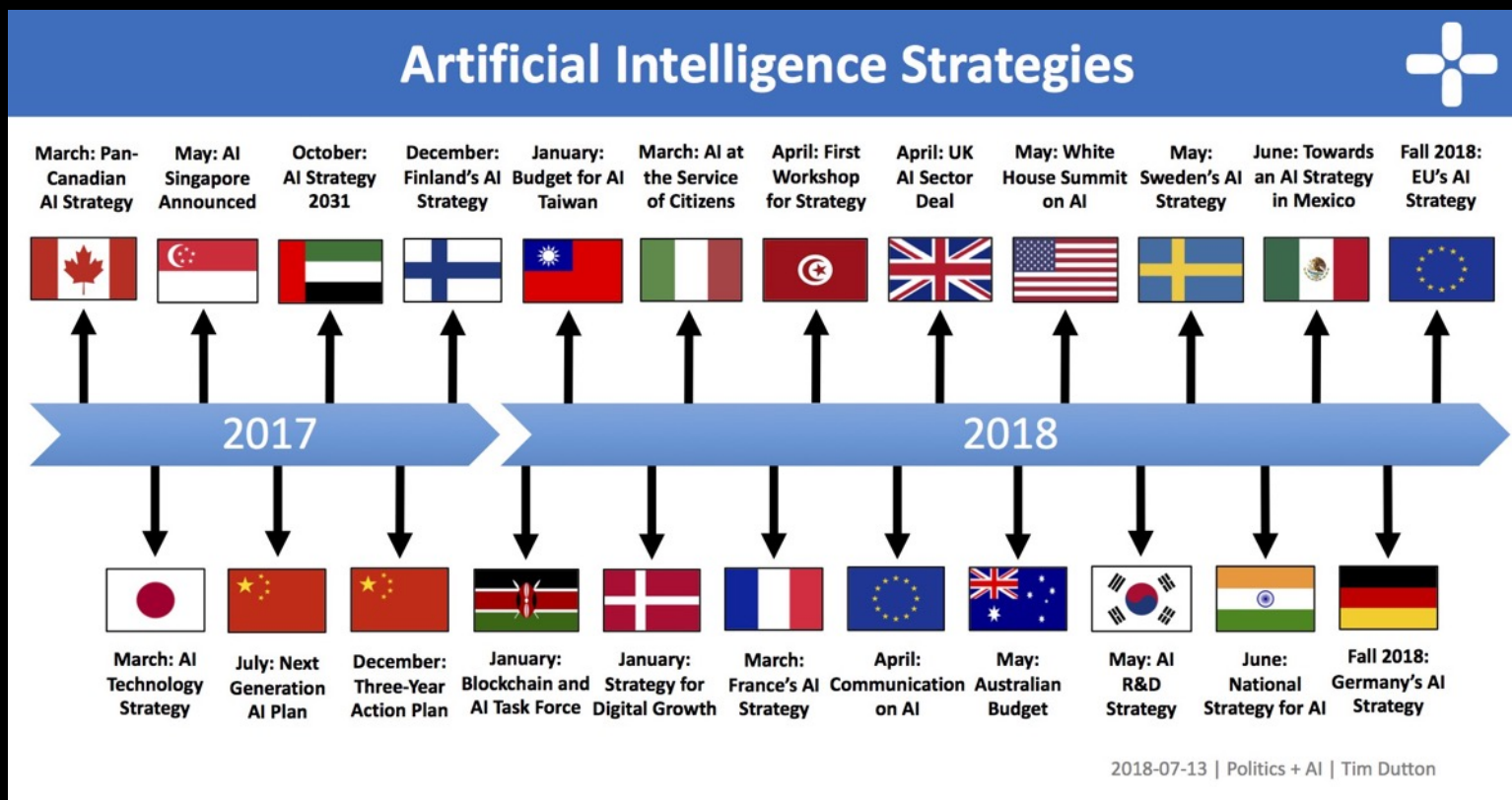
Strategies for Artificial Intelligence

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@EPIC_ProjectEU

Strategies or stratagem?

StaDt Wien



Bayerische Staatsregierung 



				Fokus																			
Land	Cover	Type	Status	Technologien								Sektoren											
				Big Data	IoT	AI Hub	Open Data	GIS	Neuroinformatics	HW (NN, sensors)	Open source platforms	Public sector	Production	Transport	Mobility	Environment	Health	Defence	Tourism	Agriculture, Food	Education	Security	
CN	AI								x	x	x		x		x		x						
DK	Digital			x	x																		
DE	AI	National	Actions					x	x				x			x	x			x		x	
EU	AI	Union	Actions									x	x	x	x		x						
FI	AI	National	Actions									x											
FR		National	Report							x				x	x	x	x	x					
JP	AI	National	Policies	x					x	x			x	x	x	x	x					x	
NZ	AI	Industrie	Report									x		x		x	x		x			x	
IN															x		x		x		x		
KR						x	x										x	x					x

Strategies: fields of action

Research

Innovation

Start-up and
risk capital

People

Infrastructure

Data

International

Regulation

Government

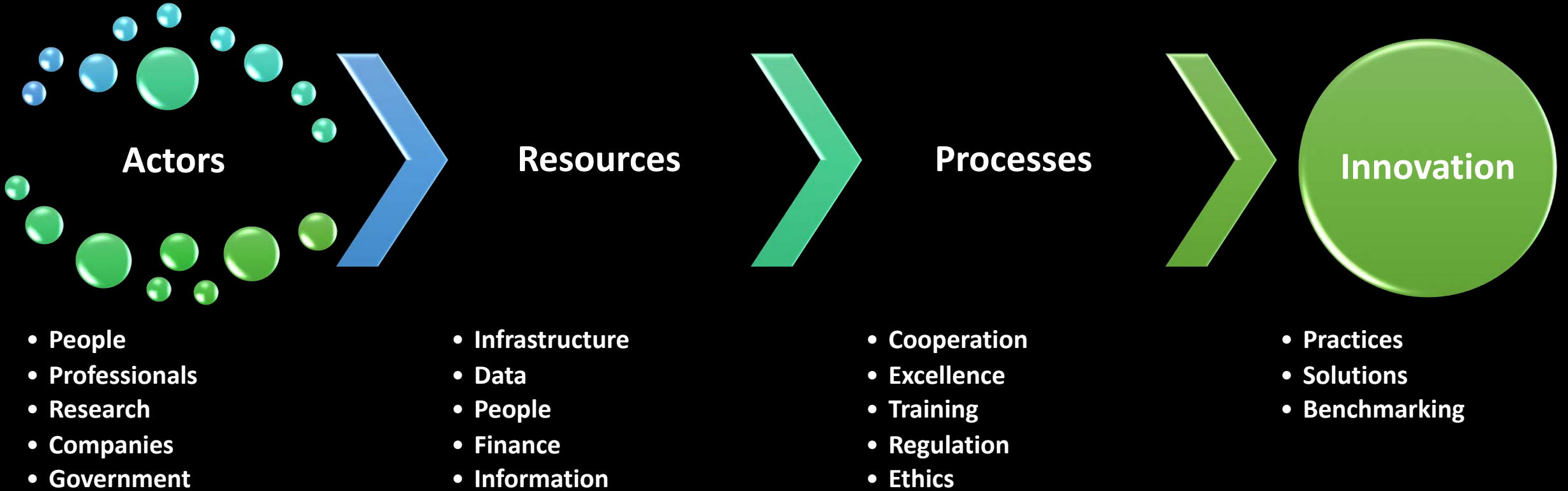
Social, labour,
ethics

Strategy

Example: People

	CN	DE	EU	FI	FR	JP	NZ	SE
Young generation		Increase of early education, AI in school curricula					Teach AI in schools (pilot)	
Broad and diverse communities			Awareness campaigns	Broad-scoped AI expertise (MOOCs etc.)	Develop creative skills; set-up public lab for labour transformations	Promotion of understanding of AI technologies	Bring AI to socio-economic diverse communities; broaden diversity of students in AI courses	Strong AI component in non-technical programmes
Skilled staff		Strategy for skilled personnel (monitoring, training, mobility)	MS to exchange best-practice to retain talent in EU; include skills dimension in national AI strategies; include AI in curricula	Master of AI degree	Attract French academics; increase salaries; triple the number of people trained on AI; ethics training for engineers	Focus on problem-solving, realization (programming), utilization; improve conditions for young researchers	Increase AI courses, degrees, students, researchers	Provide sufficient numbers with AI education and training
Training for industry	AI training resources for industry	AI-Trainer	explore how to include AI in vocational training; establish industrial AI PhD and master programmes (e.g. health, fintech, e-gov)		Enable training on AI - personalized framework contracts; develop targeted programmes for people at risk		SME AI training; educate directors and executives	
Immigration			Blue card system	AI attraction campaign	Attract international academics - reduce admin formalities		Ensure appropriate immigration skills setting, attract international talent	
Professional development		national strategy for permanent education (AI in health sector, food)		AI courses (uni, MOOC)	Adapt staff training funding for small payrolls		AI MOOC pilot	

Strategy Model



AI R&I activity areas

Research

- RTDI programs
- Industry-academia cooperation

Innovation

- AI contest
- Innovation centres
- Sector platforms
- Getting started with AI
- Innovation exchange platforms
- Service catalogue
- Enterprise benchmarking
- Test and evaluation
- Cybersecurity

- R&I program
- Innovation vouchers
- Ecosystem support

AI Program



- 100 new professorships

New professors



- AI Solution contest

Contest



- Digital Innovation Hubs

Innovation centres



- Sectorial AI platforms

Sector

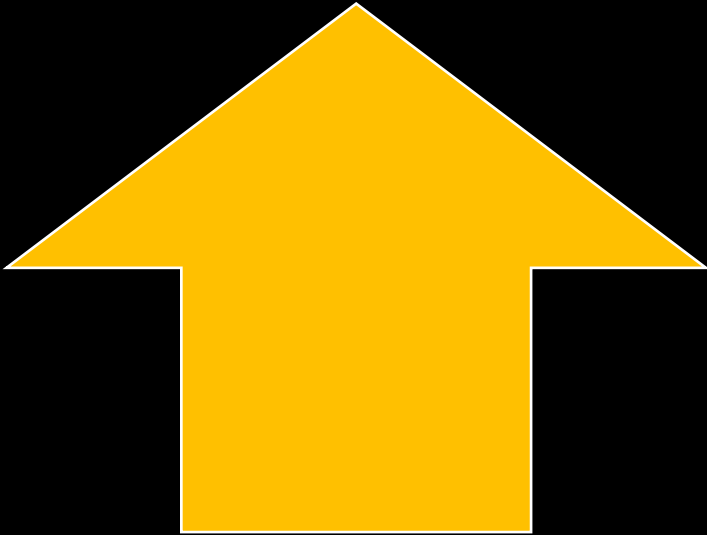


- Data test beds
- Mock environments
- Simulations

Testing

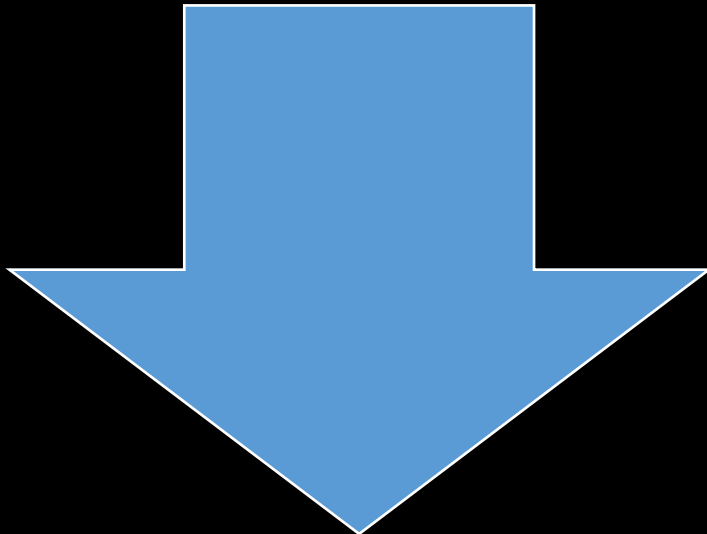


Selected challenges and common issues



Challenges

- Cross-government and (cross-province) cooperation as a major challenge
- Interfaces with digitization strategy
- Industry-academia cooperation
- Government-led innovation



Common issues

- Data features prominently – mostly in the form of open data
- Education and training are strong, but not in *using AI*
- Regulation, labour implications and ethics are strong European issues

Selected highlights

100 New
professorships (DE)

AI observatory, AI
maps, AI industry
statistics
(CN, DE, EU)

AI MOOC pilot (NZ)

Immigration
(EU, FI, FR, NZ)

DE-FR cooperation
in EU

AI for development
(EU, DE)

Increase female
participation
(FR)

AI in schools
(NZ, FI)

International
advertising
(FI, FR)

AI Strategie: some ideas



Europe



People



Creative



Young



Self-
organizing





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Fields of action: activity areas

Research	Innovation	Start-up and risk capital	People	Infrastructure and data	International	Government and regulation	Social, labour, ethics	Strategy
<ul style="list-style-type: none">• RTDI programs• Industry-academia cooperation	<ul style="list-style-type: none">• AI contest• Innovation centres• Sector platforms• Getting started with AI• Innovation exchange platforms• Service catalogue• Enterprise benchmarking• Test and evaluation• Cybersecurity	<ul style="list-style-type: none">• Start-ups• Venture capital	<ul style="list-style-type: none">• Young generation• Broad and diverse communities• Students, curricula• Industry training• Immigration• Professional development	<ul style="list-style-type: none">• Computing resources• Pilots• Data sets• Open data	<ul style="list-style-type: none">• Dialogue• Networks and policies• Development cooperation	<ul style="list-style-type: none">• Cross-government cooperation• Government lead innovation• Standards• Legal• IPR	<ul style="list-style-type: none">• Labour• Ethics and privacy• Society	<ul style="list-style-type: none">• AI Information• Strategy

Data and infrastructure

	CN	DE	EU	FI	FR	JP	NZ	SE
Data sets		Increase of early education, AI in school curricula					Teach AI in schools (pilot)	
Open data			Awareness campaigns	Broad-scoped AI expertise (MOOCs etc.)	Develop creative skills; set-up public lab for labour transformations	Promotion of understanding of AI technologies	Bring AI to socio-economic diverse communities; broaden diversity of students in AI courses	Strong AI component in non-technical programmes
Computing resources		Strategy for skilled personnel (monitoring, training, mobility)	MS to exchange best-practice to retain talent in EU; include skills dimension in national AI strategies; include AI in curricula	Master of AI degree	Attract French academics; increase salaries; triple the number of people trained on AI; ethics training for engineers	Focus on problem-solving, realization (programming), utilization; improve conditions for young researchers	Increase AI courses, degrees, students, researchers	Provide sufficient numbers with AI education and training
Pilots	AI training resources for industry	AI-Trainer	explore how to include AI in vocational training; establish industrial AI PhD and master programmes (e.g. health, fintech, e-gov)		Enable training on AI - personalized framework contracts; develop targeted programmes for people at risk		SME AI training; educate directors and executives	

International

	CN	DE	EU	FI	FR	JP	NZ	SE
Dialogue		Increase of early education, AI in school curricula					Teach AI in schools (pilot)	
International networks and policies			Awareness campaigns	Broad-scoped AI expertise (MOOCs etc.)	Develop creative skills; set-up public lab for labour transformations	Promotion of understanding of AI technologies	Bring AI to socio-economic diverse communities; broaden diversity of students in AI courses	Strong AI component in non-technical programmes
Development cooperation		Strategy for skilled personnel (monitoring, training, mobility)	MS to exchange best-practice to retain talent in EU; include skills dimension in national AI strategies; include AI in curricula	Master of AI degree	Attract French academics; increase salaries; triple the number of people trained on AI; ethics training for engineers	Focus on problem-solving, realization (programming), utilization; improve conditions for young researchers	Increase AI courses, degrees, students, researchers	Provide sufficient numbers with AI education and training

Innovation 1

	CN	DE	EU	FI	FR	JP	NZ	SE
AI Solution contests		Increase of early education, AI in school curricula					Teach AI in schools (pilot)	
Innovation centres			Awareness campaigns	Broad-scoped AI expertise (MOOCs etc.)	Develop creative skills; set-up public lab for labour transformations	Promotion of understanding of AI technologies	Bring AI to socio-economic diverse communities; broaden diversity of students in AI courses	Strong AI component in non-technical programmes
Sector platforms		Strategy for skilled personnel (monitoring, training, mobility)	MS to exchange best-practice to retain talent in EU; include skills dimension in national AI strategies; include AI in curricula	Master of AI degree	Attract French academics; increase salaries; triple the number of people trained on AI; ethics training for engineers	Focus on problem-solving, realization (programming), utilization; improve conditions for young researchers	Increase AI courses, degrees, students, researchers	Provide sufficient numbers with AI education and training
Getting started with AI	AI training resources for industry	AI-Trainer	explore how to include AI in vocational training; establish industrial AI PhD and master programmes (e.g. health, fintech, e-gov)		Enable training on AI - personalized framework contracts; develop targeted programmes for people at risk		SME AI training; educate directors and executives	
Enterprise innovation exchange platforms			Blue card system	AI attraction campaign	Attract international academics - reduce admin formalities		Ensure appropriate immigration skills setting, attract international talent	
Service catalogue		national strategy for permanent education (AI in health sector, food)		AI courses (uni, MOOC)	Adapt staff training funding for small payrolls		AI MOOC pilot	

Innovation 2 and research

	CN	DE	EU	FI	FR	JP	NZ	SE
Innovation benchmarking enterprises		Increase of early education, AI in school curricula					Teach AI in schools (pilot)	
Test / Evaluation			Awareness campaigns	Broad-scoped AI expertise (MOOCs etc.)	Develop creative skills; set-up public lab for labour transformations	Promotion of understanding of AI technologies	Bring AI to socio-economic diverse communities; broaden diversity of students in AI courses	Strong AI component in non-technical programmes
Cybersecurity		Strategy for skilled personnel (monitoring, training, mobility)	MS to exchange best-practice to retain talent in EU; include skills dimension in national AI strategies; include AI in curricula	Master of AI degree	Attract French academics; increase salaries; triple the number of people trained on AI; ethics training for engineers	Focus on problem-solving, realization (programming), utilization; improve conditions for young researchers	Increase AI courses, degrees, students, researchers	Provide sufficient numbers with AI education and training
RTDI programmes - industry & academia	AI training resources for industry	AI-Trainer	explore how to include AI in vocational training; establish industrial AI PhD and master programmes (e.g. health, fintech, e-gov)		Enable training on AI - personalized framework contracts; develop targeted programmes for people at risk		SME AI training; educate directors and executives	
Academic staff			Blue card system	AI attraction campaign	Attract international academics - reduce admin formalities		Ensure appropriate immigration skills setting, attract international talent	
Special research topics		national strategy for permanent education (AI in health sector, food)		AI courses (uni, MOOC)	Adapt staff training funding for small payrolls		AI MOOC pilot	