



Fuel
Choices
Initiative



Prime Minister's Office

Israel Fuel Choices Initiative

Pushing Towards Alternatives

Dr. Anat Bonshtien

FREEDOM TO CHOOSE THE WAY WE MOVE



Fuel
Choices
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Our Mission:

To serve as a catalyst for the reduction of global dependence on crude oil by establishing Israel as a center of knowledge and industry in the field of fuel alternatives for transportation.

Strategy

1. Reduce the share of oil in Israel's transportation sector by **30% by 2020** and by **60% by 2025**, while supporting green growth and becoming a show case to the world.
2. Turn Israel into a center of knowledge and industrial best practices in the field of fuel alternatives.
3. Raising the world's awareness of alternative fuels. Building global coalition of partners to speed up innovation.

Program Structure

MISSION

Serve as a catalyst for the reduction to the world's dependence on oil

GOALS

Turning Israel into a center of knowledge & best practices

Raise awareness & build International collaboration

OBJECTIVES

Developing next generation technologies

Show case

build Industry

Raise awareness

Int'l collaboration

TOOLS

Research centers + projects

Support Pilots

Chief Science +Co-Invest Fund

Seminars & Int'l Prize

Int'l marketing

GOVERNMENT

10 Gov. offices

Center of Knowledge and Best Practice

Fuel Choices Administration Under the Prime Minister's Office

Global Partnerships with Leading Players

Local Regulation & Incentives

Supporting Pilots

Venture Capital Co-Investment

Research Centers & Grants

Research

Industrial
R&D

Start ups

Pilots

Scale Up

Government Activity



Regulation and Support

- ✓ *One Stop Center*
- ✓ *Unified regulation process*
- ✓ *Technical Pilots*
- ✓ *Seminars*
- ✓ *Tax policy*
- ✓ *Entrepreneurs boot camps*



Financial Support

- ✓ *Academic centers + grants*
- ✓ *"Magnets" Clusters of academia-industry*
- ✓ *Chief Scientist grants*
- ✓ *Co-investment fund*
- ✓ *Pilots and Demo grants*
- ✓ *New Global Prize*

Academic Research Centers



Israel National Research center for Electrochemical Propulsion (INREP)

BIU, TAU, Technion, AUC

*The Challenge: improved energy
storage & integration into mobility
platforms*

focused on:

- *Hydrogen Storage Systems*
- *Metal Air Batteries*
- *Battery Management Systems*
- *Lithium Batteries*
- *Super Capacitors*
- *Fuel Cells*

Solar Fuels I-Core

Technion, BGU, Wiz

*Challenge: Generate clean, efficient
energy from renewable sources.*

focused on:

- *Bio mass Conversion*
- *Photo (electro) Chemical Conversion*
- *Sugar 2 Ethanol*
- *Energy Rich Biomass*
- *Renewable Fuels Production*

Agro - Energy Research (Vulcani Center)

*Challenge: Seed to Harvest
Biofuel Generation*

focused on:

- *New varieties of energy plants*
- *New machinery for harvest of new crops*
- *Procedures for post harvest processes and production of bio-fuels*
- *Development of other new local technologies*

Smart Transportation Institute

- *Together with Porter School and Engineering School at TAU.*
- *National center open of researchers from all U.*
- *Multi disciplinary*
- *Research agreements with int' institute*
- *Partnership with Industry.*
- *Accelerator.*



EcoMotion – What we do



***Community focused on
innovative smart
transportation
technology***

- Monthly workshops for entrepreneurs
- Challenge Competitions
- Hackathons
- Innovation Events (cyber-security in transportation, public transportation est.)
- Investors Events
- Making Connections
- Lowering Barriers
- Creating Data Base
- An Innovation Maker – constantly thinking about and promoting the sector by creating new activities and collaborations
- Flagship Event

FREEDOM TO CH



Why Alternative Jet Fuels?



The International Civil Aviation Organization (ICAO)

- A UN specialized agency leading the CO2 reduction from civil aviation.
- Resolution A38-18 of the 38th Session ICAO Assembly encourages States to submit an action plan to reduce CO2 emissions.
- 74 States representing 82% Int' activity submitted
- Israel is obligated to submit to ICAO an action plan to reduce CO2 emissions from aviation.
- Body in charge: Civil Aviation Authority



BASKET OF MEASURES TO LIMIT OR REDUCE CO₂ EMISSIONS

- Aircraft-related technology development
- **Alternative fuels**
- Improved air traffic management and infrastructure use
- More efficient operations
- Economic/market-based measures
- Regulatory measures/other
- Airport improvements



Development and use of alternative jet fuels

- a. Development of biofuels
- b. Development of other fuels with lower lifecycle CO₂ emissions
- c. Standards/requirements for alternative fuel use

On going efforts

- Promote research on academy level
Specific Grants from ISF, Min S&T, Min of Energy, Min of EP
- Promote Start ups (Grants, EcoMotion)
- Promote pilots and demonstrations of fuel production technologies
Example: The Blechner Center for Industrial Catalysis and Process Development, BGU
- One stop center for start ups and industry
- Collaboration with international organization (CAAFI, FAA, ILA)
- Promote international projects (Eg. BIRD Energy, BSF, other platforms)

Additional efforts

- Establish a dedicated Israeli team with a focus on alternative aviation fuels
- Continue Collaboration with international organization through a defined program.
- Promote research on an international level
- More pilots and demonstrations of fuel production technologies
- Promote standardization
- Introduce Israeli airlines to the discourse of aviation fuel alternatives
- Constitute an advisory board

International Activity



Raising the world's awareness to fuel choices, and to Israel's policy in the field.

Invite potential partners to take part in the local activities in this field

Establishing global network of partners to support innovation in alternative fuels.

The Prime Minister's Prize for Innovation - Will be given to global innovation or a scientific or technological breakthrough in the field of alternative fuels in transportation

- *Fuel Choices Summit*
- *Agro Energy Nexus*
- *JAFa*
- *Bi lateral agreements*
- *MOUs*



Prime Minister's Office

Global Challenge

Local Research and Innovation

International Collaboration

